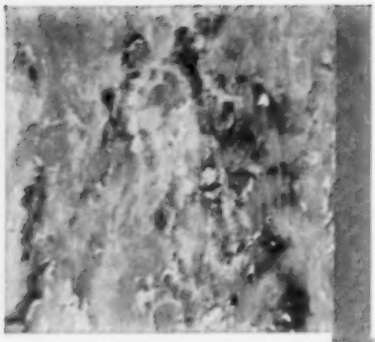
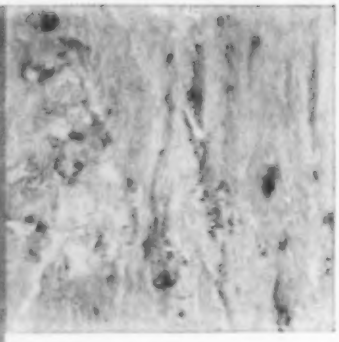

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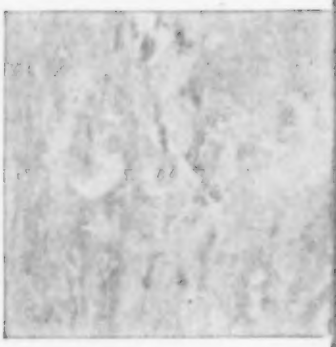




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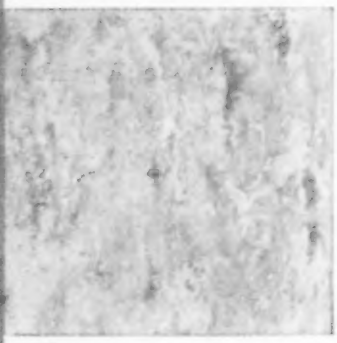


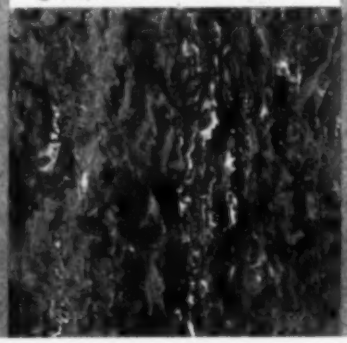
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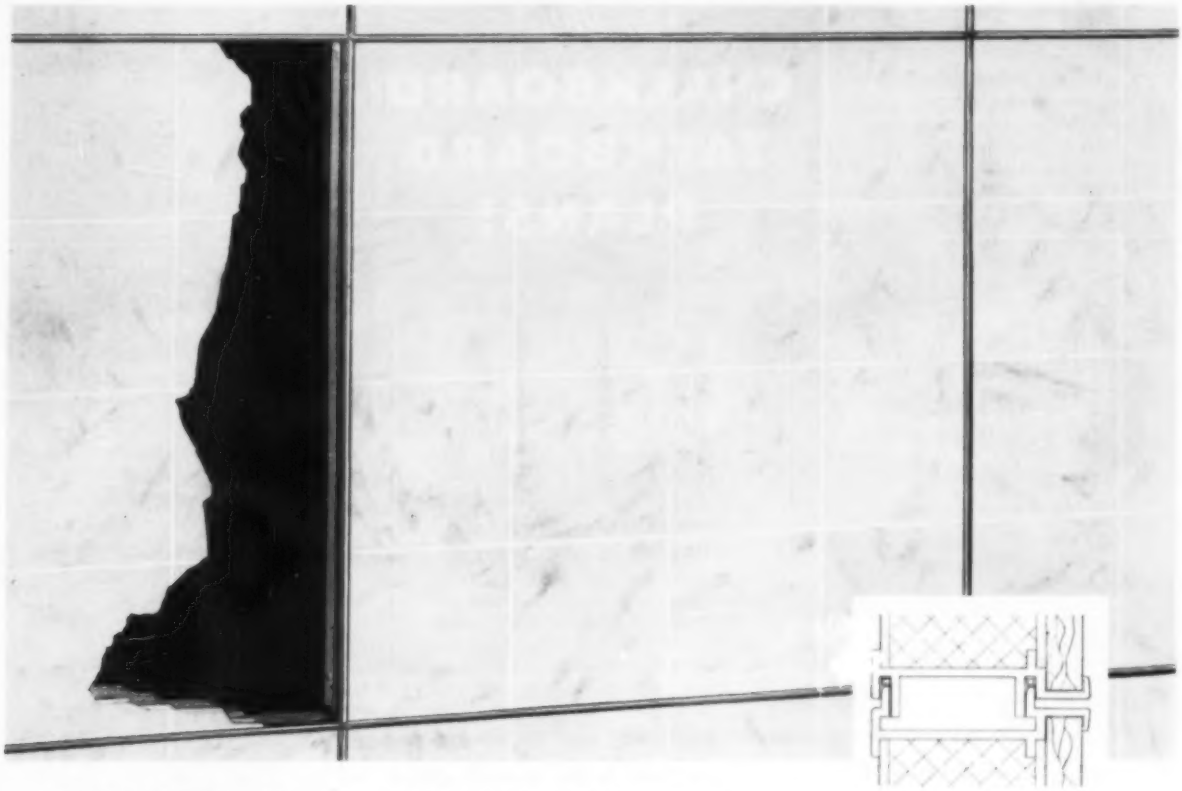
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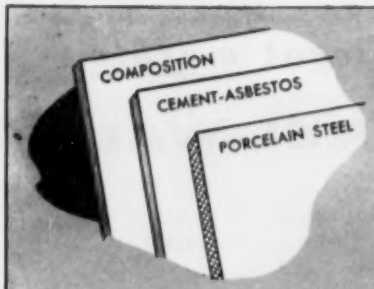
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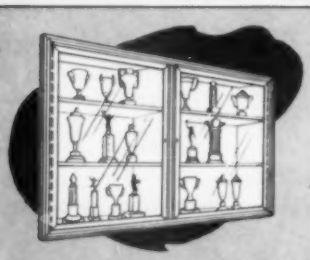
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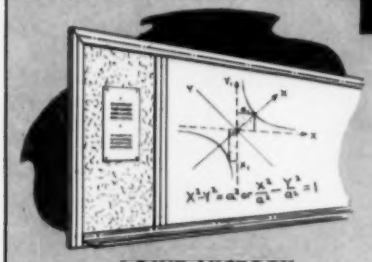
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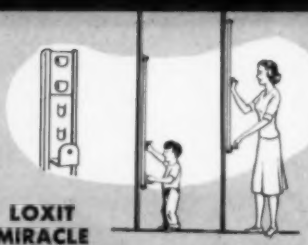
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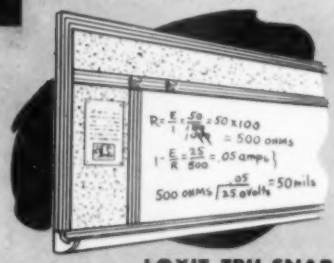
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AIA

JOURNAL

of The American Institute of Architects

VOLUME XXXI, NO. 2 FEBRUARY 1959

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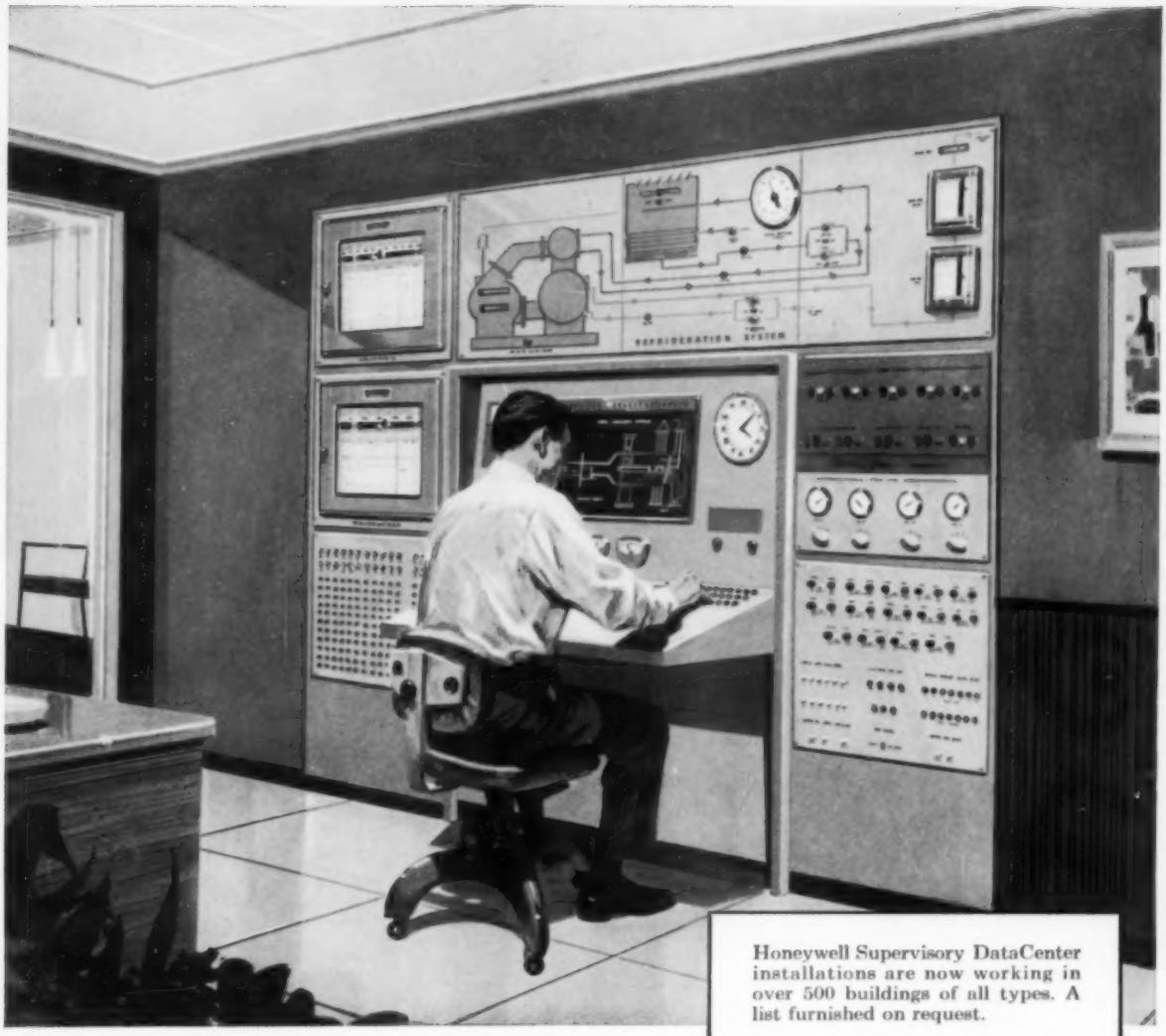
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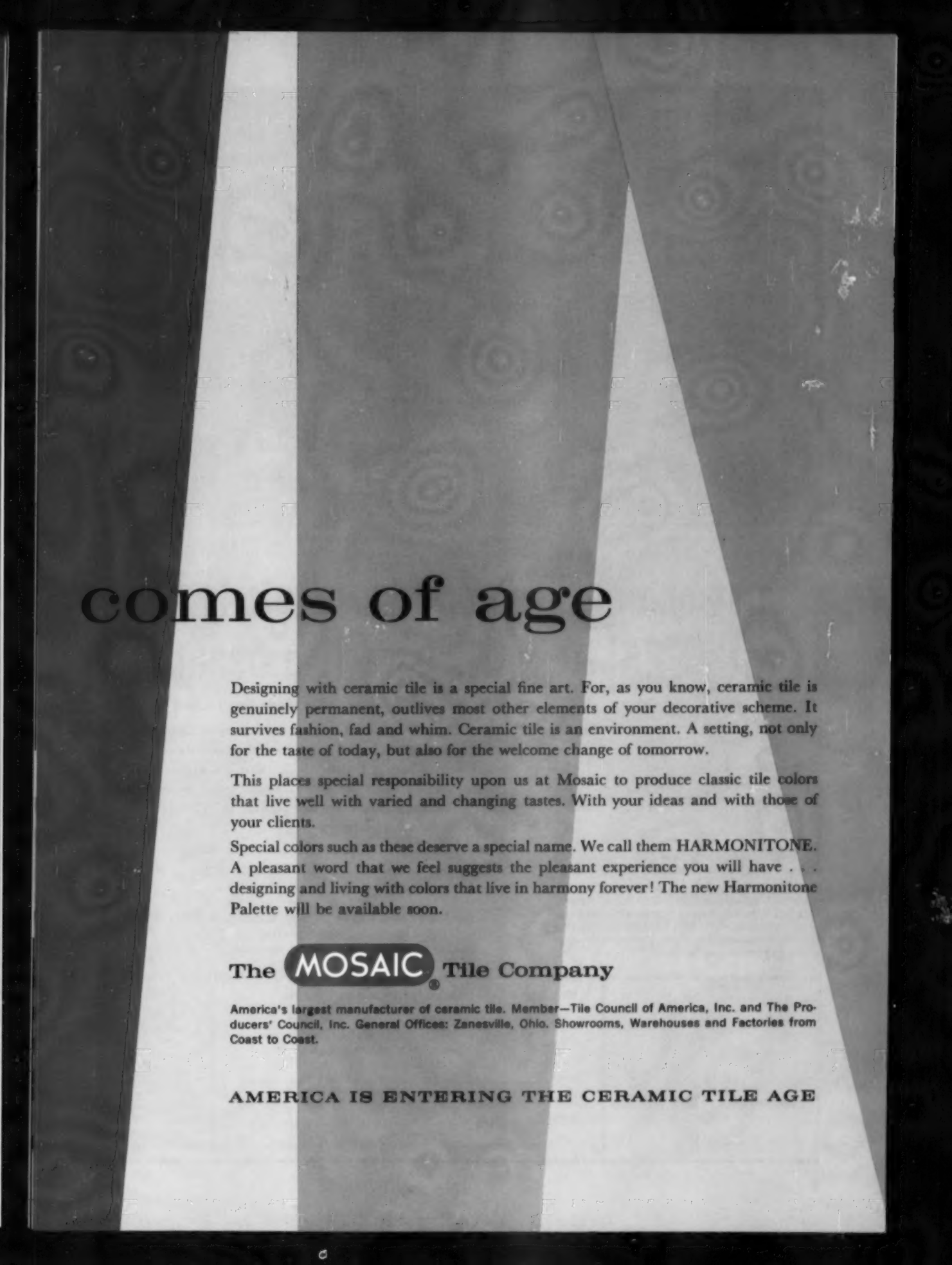
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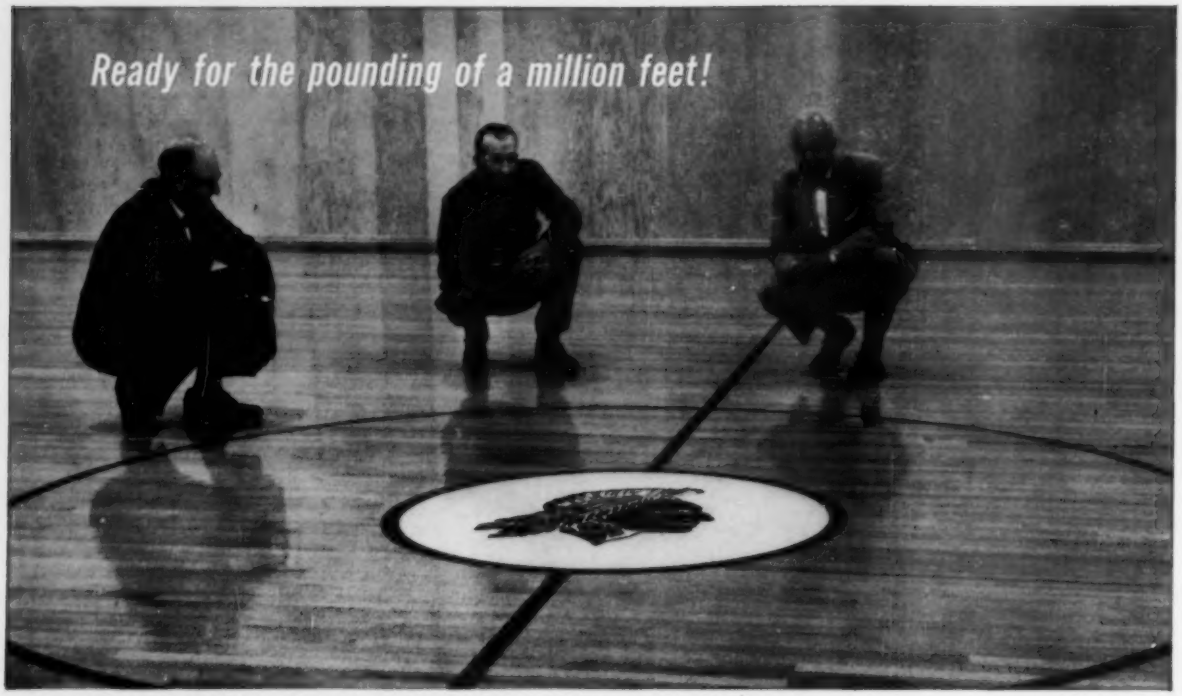
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Left to right: Mr. Huff; Mr. Cliff Gates, Superintendent of Maintenance; and Mr. Goff, the Huntington representative, inspecting the newly lined and finished gym floor at the Siletz school.

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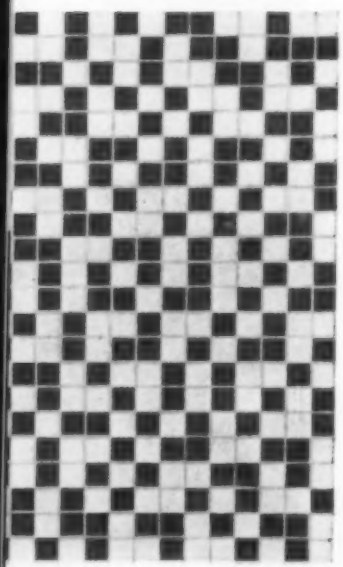


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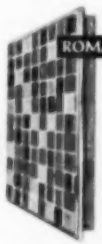
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NEWS

A SPECIAL 14-CITY closed circuit television informational meeting for architects will be presented by the structural clay products industry on Tuesday, February 24.

Architects in the 14 cities will receive invitations from local clay products industry organizations to be their guests for the event. The following cities are participating: New York City, Philadelphia, Washington, D. C., Raleigh, North Carolina, Atlanta, New Orleans, Pittsburgh, Cleveland and Columbus, Ohio, Detroit, Chicago, Denver and Hamilton and Toronto, Canada.

Basic theme of the program is "The Use of Structural Clay Products in New Construction" with emphasis on aesthetics, ultimate cost, structural flexibility, workmanship and productivity.

Speakers on the television program include Edmund R. Purves, FAIA, Executive Director, American Institute of Architects, who will open the program with some introductory remarks; Paul Rudolph, AIA, Chairman of the Architectural School, Yale University, who will discuss aesthetics and Otto L. Nelson, Jr., Vice President in Charge of Housing, New York Life Insurance Co., who will speak on ultimate building costs.

In addition, there will be a talk on structural flexibility by Fred N. Severud, consulting engineer, Severud-Elstad-Krueger Associates and a discussion of productivity and workmanship by John B. Kelly, Philadelphia mason contractor and Harry C. Bates, President of the Bricklayers, Masons & Plasterers International Union. See opposite page for additional information.

UNDER THE AUSPICES OF UNESCO, the Brazilian Institute for Education, Science and Culture, with the collaboration of the Institute of Architects of Brazil and the UIA, organized a series of discussions on the problems of new towns.

The sessions were held last fall in the Museum of Modern Art in Rio de Janeiro, under the chairmanship of Jean Thomas, Director General, and Professor Berredo Carnerio, Permanent Delegate from Brazil to UNESCO.

As part of the sessions the participants visited Brazilia, the new capital of Brazil, now under construction. During the visit to Brazilia they were received by the President of Brazil, Juscelino Kubitschek.

At the conclusion of the sessions, the following resolutions were adopted:

1. The creation of every new town should be integrated in plans for the region, the nation and the continent.

2. Integrated planning at the level of the town, the region, the nation, is the first job of the responsible organizations.

3. The final goal of this planning is the full flowering of the human being, the supreme ideal of every democracy.

4. Urban planning is the concern of all and the public conscience must be awakened to this truth.

5. The city plan is a continuous creation, the reflection of a living and constantly evolving organism.

6. Planning based on geographic, economic, and human factors must be done by a group among which architects must collaborate effectively from the start.

THE CENTENNIAL MEMORIAL COMMITTEE appointed by the New Jersey Chapter and the New Jersey Society of Architects has completed the first steps in preserving the portico designed by Thomas U. Walter, a founder of the AIA, and its second President.

Through the generous co-operation of the Institute for Advanced Study of Princeton, the dismantling and removal of this important monument to the Princeton Battlefield Memorial Park has been assured. The State of New Jersey has agreed to maintain it as an adornment of that historic site, where it will serve as a propylaea for the grove of lofty pines which surrounds the common grave of the American and British soldiers who fell in the engagement—"Unknown Soldiers of the Revolution."

The marble portico is Ionic tetra-style. It was first erected in Philadelphia in 1836, and moved to Princeton about 1900, as the entrance feature of a house now demolished. The architect's name is carved on the inside of the architrave.

Funds are now being solicited for its re-erection. It is hoped to have it standing again in the near future, as a gift from the architects of New Jersey to their state in commemoration of the AIA's Centennial.

The Committee consists of Martin L. Beck, Chairman; Paul Drake; Eugene Dennis; Alfred Green; Sherley W. Morgan, Hon. Chairman; John Scacchetti and Seymour Williams.

Past-President Chatelain and Chairman Earl Reed of the Committee on Preservation of Historic Buildings have helped greatly by their support of this project.


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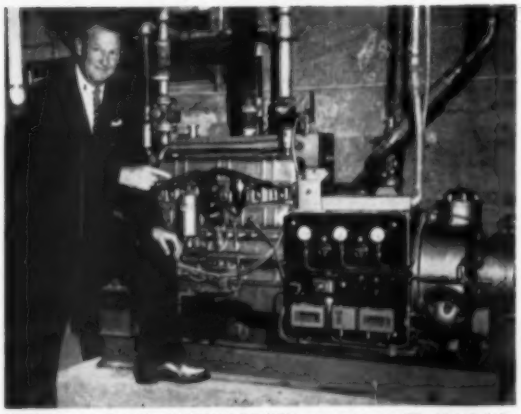
"Nothing to do—but enjoy it, with our all-year READY-POWER GAS air-conditioning!"

Says Harry L. Merrick, Sr.
President, Kal, Ehrlich & Merrick
Advertising Agency

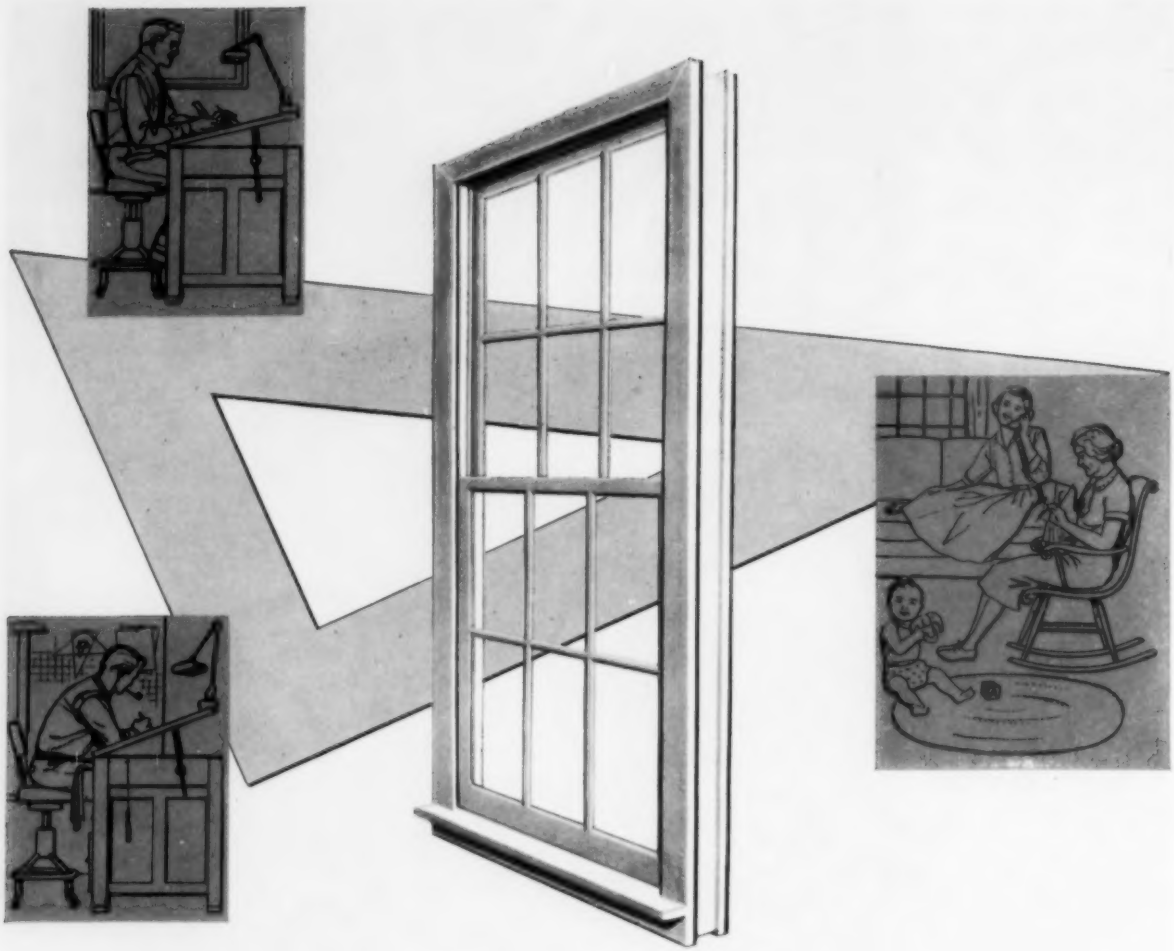
"Only the best air-conditioning system would do for our new building, and experience proves the best is definitely gas", continues Mr. Merrick. "Our Ready-Power air conditioner gives us the exact climate control we want . . . and it's extremely inexpensive to operate."

Ready-Power's variable speed operation offers *constant, precise* control of humidity and temperature without the variations common to on-off systems. Because they combine the outstanding economy of gas fuel with automatic metering to match the load on hand, Ready-Power units have the lowest known operating costs . . . *less than a penny per ton per hour!*

For information on how you can benefit by installing modern Gas air conditioning equipment, call your Gas Company's commercial specialist or write to the Ready-Power Company, Detroit 14, Michigan. *American Gas Association.*



"This is our Gas-fired READY-POWER compressor. It's absolutely care-free and as thrifty to operate as we could wish."



Monarch Weatherstrip is the quality touch in "Compatibly Engineered" window units

Although they may appear of equal quality, there is a vast difference between the many brands of weatherstripped window units when measured by their efficiency in retarding infiltration and exfiltration. Those that invariably provide the highest degree of weathertightness have been "compatibly engineered" to insure both weatherstrip and window have been designed and precision-made especially for each other.

By specifying that Complete Window Units be Monarch-weatherstripped you automatically give your clients the perennial benefits of "compatible engineering"—the greatest economy in heating and cooling, more comfortably uniform winter and summer temperatures, and much lower cleaning and maintenance expense.

Monarch weatherstrip on windows and doors is an indication of finest quality and superior construction.

MONARCH **METAL WEATHERSTRIP**

World's Largest Exclusive Weatherstrip Manufacturer

6319 ETZEL AVE. • ST. LOUIS 14, MO.

A brief guide to vinyl flooring materials

Architects and specification writers have lately been subjected to an onslaught of data about vinyl flooring materials. This has tended to cause confusion about the different types of vinyl floors that are available. It is important to understand what these basic types are; where they may be used; why one type costs more than another. To help clear up the confusion, Armstrong—the one company that manufactures all the different types—offers this résumé of vinyl floors. (A number of vinyl-*coated* flooring materials are also available from Armstrong and other companies, but since they are not technically "vinyl floors" they have been omitted from this guide.) The chart gives data on costs and recommended uses.

Vinyl-Asbestos Floors Produced in tile, their composition is vinyl resins and asbestos fillers. These are the most widely used of all vinyl floors because of outstanding physical properties and relatively low cost. Exceptional durability and ease of cleaning result in low-maintenance costs. Performance is excellent over suspended subfloors, on-grade slabs and below-grade concrete with conventional low-cost adhesives. Resistance to alkalis and grease is exceptional.

Armstrong's vinyl-asbestos floor, called Excelon Tile, is available in 1/16" and 1/8" gauges and a wide choice of colors and designs. In areas requiring high resistance to indentation and superior underfoot comfort and quiet, the following floors are recommended.

Vinyl Sheet Floors These are somewhat more expensive than vinyl-asbestos floors because, except for backing materials, they are formulated entirely of vinyl resins compounds. The high percentage of vinyl makes these floors particularly attractive and colorful and gives them flexibility, more resilience, and very good resistance to wear, grease, and alkalis.

The Armstrong type—Vinyl Corlon—comes in six handsome design series. The new Tessera Series merits special attention. Tessera is a monochromatic, mosaic-styled floor, with vinyl chips laid in a bed of translucent vinyl. Truly a universal floor, it meets the decorative and functional requirements of any interior and offers exceptional service. The exclusive, alkali-resistant Armstrong Hydrocord Back permits Tessera's installation on grade and below grade as well as on suspended floors.

An excellent vinyl floor for "showplace" interiors is Futuresq Corlon. It also is made with clear and translucent vinyl, intermingled with brilliantly colored vinyl chips and metallic particles.

Homogeneous Vinyl Floors Tiles of this type are unbacked and have uniform composition throughout. Typical benefits are superior indentation resistance; almost unlimited application; brilliant colorings; exceptional durability. Due to high raw material and manufacturing costs, this type of floor is by no means inexpensive. Armstrong makes two types of homogeneous vinyl tile. The first, Custom Corlon Tile, is very highly regarded by architects who have used it, being favored where long-term aesthetic and functional considerations are foremost. By a special Armstrong curing process, tiles are given unusually high dimensional stability.

The second Armstrong type is Opalesq Vinyl Tile, designed for interiors where the unusual is a greater consideration than cost. Made with opaque and translucent vinyl, a recently perfected mix gives these vinyl tiles intriguing depth effects and light reflections, exceptional durability, and ease of maintenance.

A valuable architectural service

Your Armstrong Architectural-Builder Consultant can provide you with specifications, samples, and complete data on Armstrong vinyl floors as well as on other Armstrong flooring products. He can also obtain design and technical assistance for you from the Armstrong Bureau of Interior Decoration and Research Center. Call him at your Armstrong District Office or write to Armstrong Cork Company, Floor Division, Lancaster, Pennsylvania.

Armstrong
CORK COMPANY
FLOOR DIVISION • LANCASTER, PENNSYLVANIA

Armstrong Vinyl Floors by Types		Approx. price per sq. ft. installed	Suggested use indicated by shaded areas					
			Above Grade	On Grade	Below Grade	Heavy Traffic	Moderate Traffic	Light Traffic
Vinyl-asbestos Floors								
EXCELON TILE		35¢ - 60¢	■	■	■	■	■	■
Vinyl Sheet Floors								
CORLON	Granette Series	45¢ - 50¢	■					■
	Terrazzo Series	45¢ - 50¢	■					■
	Mosaic Series	45¢ - 50¢	■					■
	Decoresq Series	45¢ - 60¢	■	■	■			■
CORLON	with translucent effects							
	Futuresq Series	55¢ - 65¢	■					■
	Tessera Series	75¢ - 90¢	■	■	■	■	■	■
Homogeneous Vinyl Floors								
CUSTOM CORLON TILE		70¢ - $1.30	■	■	■	■	■	■
OPALESQ TILE with translucent effects		$2.40 - $2.75	■	■	■	■	■	■

When you look upon the modern Milliken Building in New York City, you can't help but reflect upon the ageless beauty of the first material of architectural art—marble. We are proud that it was ours that has been used so wisely, so beautifully and so well.

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Architects: Carson & Lundin / General Contractor: Turner Construction Company / Marble Contractor: John F. McGowan Marble Co., Inc. / Exterior: White Georgia Marble



DIVISIONS: Structural Division, Nelson, Georgia/Calcium Products Division, Tate, Georgia/Alabama Limestone Co., Russellville, Alabama/Green Mountain Marble Co., West Rutland, Vermont/Tennessee Marble Co., Knoxville, Tennessee/Alberene Stone Corp. of Virginia, Schuyler, Virginia/Willingham-Little Stone Co., Atlanta, Georgia

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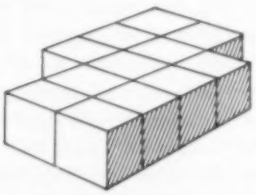
An Architect's View of Creativity

ALDEN B. DOW, FAIA

An address presented at the Symposia on Creativity at Michigan State University in 1958. The addresses will be published in 1959 by Harper and Brothers, Harold H. Anderson, editor, under the title of "Creativity: and Its Cultivation." Printed in advance of publication by permission of the editor and the publishers.

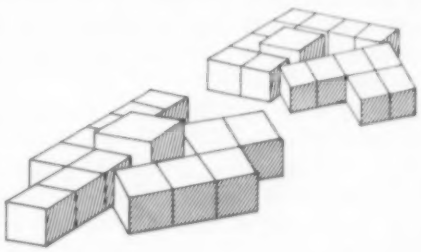
NO MATTER WHERE we may look, the process of creativity is at work. It may be in the growing of a plant, erosion of a mountain or the swelling of the sea. All is change, all is individual, and everywhere is creativeness.

You may casually observe that the daisies in a field are all alike, but on closer observation find every one an individual, each a product of this force we call creativeness.



To demonstrate how this is possible, I call your attention to these cubes which are all identical. They represent certain structural elements in, say, the daisy. It is the nature of these particular elements to combine with each other with their faces adjoining and the corners matching. Thus, as long as there is only this one structural element in the development of a system, the resulting form is rectangular in character.

But suppose that one of these structural elements is not a pure cube, or that another cube element of larger size must live with the others:



As you will observe this upsets the purity of the structural system so that just one element of this odd size can influence a variety of forms. The greater the variety of structural elements that enter into the total composition, the greater the variations possible in the developed form.

Atoms themselves are made up of particles wildly racing around an orbit, striking and bouncing here and there, producing a form never the same at any instant. Thus in nature there are never two identical building blocks, and therefore never two identical

structures. For this reason I am not surprised at the creativeness or individuality found in natural structures. I am amazed, however, that nature with all this creative ability is willing to conform just enough to produce a thing that we can recognize as a common daisy. If the building blocks are similar, I can see how there would be a common kind of character among individual forms. For example, a house built of bricks is a brick house, and a house built of wood is a wood house. This, no doubt, is what we call genetics, but it does not account for the similarity of the forms of all daisies. The reason, I presume, is that the daisy, in order to survive, must conform to specific outside influences or forces, such as water, wind, sunlight, minerals, gravity, insects and many more. The effect of these outside forces on the final form intrigue me. I suspect that within limits the greater the number of influences or outside forces, the less individuality is displayed in the final form. I admit that I have only weak arguments to support this thought. I mention it because, as I said before, it intrigues me.

Now let's take a look at the human being. Physically, he is not unlike the daisy. Some of us may look alike to the casual observer, but no mother ever mistakes the identity of a twin, and if you want to make a permanent record of this identity, just record the fingerprints.

Knowing that the human being is such an individual physically, it must follow that his thinking apparatus is also individual. With this view in mind, I fail to see why we cannot accept each person by nature to be a creative personality. Rather than worrying about how to make him more creative, this quality should be taken for granted. The real problem is to discover what outside influences or forces prevent creativeness, or prevent anyone from becoming a complete personality.

It seems to me we are guided in our productiveness in either of two ways—by the narrow deadening boundaries of conformity, or by the intellectual or spiritual guidance of truth or principle. Conformity seems to be the tool of fear or ignorance, whereas principle is the process of love or growth. I think it is important to realize that conformity must be taught, whereas truth and principle are ultimately learned.

Right now, I am disturbed by the growing tendency to accept direction through conformity. Too often it is the philosophy of bigness. Government subsidies rarely contain a creative force. Their purpose is to bring about conformity in order to satisfy an emergency and many businesses become sterile in this kind of atmosphere. I would like to call your attention to the great number of graphic prediction charts that are being shown to us these days, all based upon blind conformity. I received such a chart from a paint organization the other day. It plotted the most popular colors starting with the year 1945, and by continuing the direction of these lines through 1957, they anticipated the popular colors for 1958. Their predictions are probably correct. The fallacy is the uncreative approach to the use of color. It is like the blind leading the blind.

My father used to criticize such an approach in this way. He would say, "Never copy. If you cannot figure out a way to do a thing better than it has been done before, don't do it, for otherwise you are just inviting cut-throat competition." This is another way of saying that blind conformity is deadening. The faults of this kind of conformity do not only apply to business. I believe that the majority of life's unpleasantries can be traced to the influences of conformity. The man who hates his job is contributing nothing, he is a blind conformist. Please realize that there is a great difference between blind conformity and the kind of conformity we mean when we speak of conforming to a truth or principle.

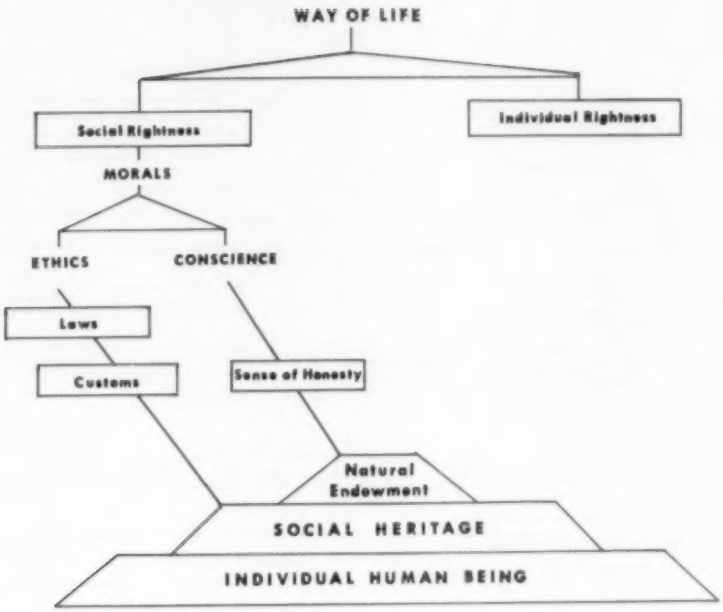
If we are going to grow into the great creative peoples which we must become in order to maintain our standard of living, we must actively express our beliefs in truths and principles. The most important thing we can do is to develop a faith in the wonderful potentialities of the individual human being.

NOW WE ALL KNOW that this human being is not the complete individual that I have implied. He does have certain qualities and abilities that are in a measure common to all. In order to review these qualities, I want to show you an analysis I made of myself some years ago. It came about because of one of those very blue Mondays.

Everything seemed to be wrong. My office was off the beam, my clients were off the beam, my family was off the beam, and I wasn't too sure just which beam I was trying to ride. I sat down at my desk and said "What in the world am I trying to do?" And I came up with an answer that somewhat surprised me. I said I was looking for a "Way of Life." So I wrote down on a piece of paper: *Way of Life*.

And then I asked myself, What is a Way of Life? It seemed that whatever it was it had to please me, and it also had to please my neighbor. So I concluded that a Way of Life was made up of a balance with myself on one side and the group on the other side. I called this Individual Rightness, and Social Rightness, and my diagram looked like this:





Then I asked myself—What is Social Rightness? It seemed to me that when things were right with the group, it was a matter of morals, so under Social Rightness, I put the word—*Morals*. "What are Morals?" I asked.

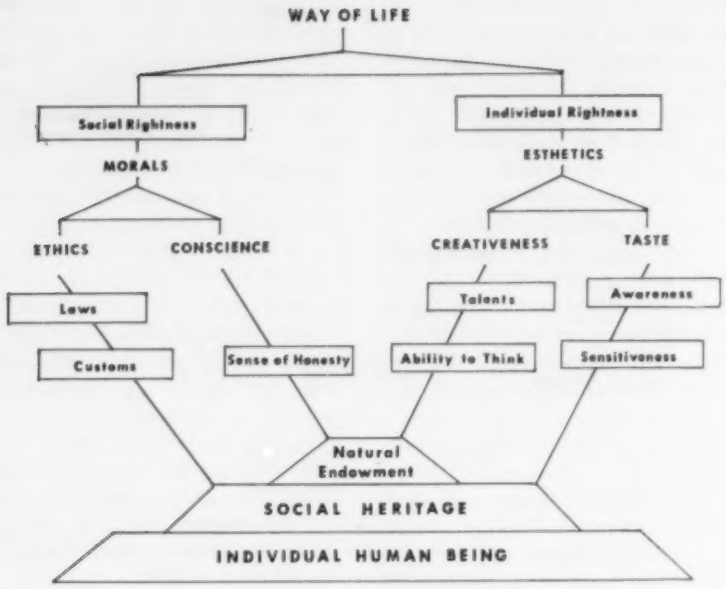
They seemed to be made up of another balance with *Ethics* on one side and *Conscience* on the other. Ethics seemed to spring from our social heritage which gives us customs and laws. Conscience seemed to develop from our natural endowment through a sense of honesty. I find that some people doubt that sense of honesty is a natural endowment. We know this must be true because without it we could not exist. A child has a keen sense of his mother's truthfulness; and a man depends upon the honesty of his neighbor.

Now let's take a look at Individual Rightness. When are things right with me? When I can say: This is a beautiful solution, or sing like that cowboy in "Oklahoma," "Oh, what a beautiful morning," I certainly have Individual Rightness. In other words, it is a matter of beauty, a very personal kind of beauty, but still it is esthetics. So below Individual Rightness, I wrote the word: *Esthetics*.

Then I asked myself, What produces Esthetics? It seems to be a matter of two things, Creativeness on one side and Taste on the other. Creativeness develops from our natural endowment through our peculiar ability to think and our particular talents. Please realize that ability to think has nothing to do with capacity of the mind for thought or what we call I.Q. It is a pure expression of the individualism of every mind, and when this is combined with that individual's particular talent, which is also individual, a combination of forces exists which if not diverted by a requirement for conformity cannot help but be original. This originality, however, is useless to this individual unless he is capable of weighing the value of this idea as opposed to another. This is the function of taste which we acquire through our sensitiveness and awareness.

We now have a diagram that is in balance and it tells us some interesting things. For example, by referring to this diagram, I find that on a blue Monday I am out of balance. My thoughts are all on the side of Social Rightness, and all I have to do to bring my spirits out of this miserable existence is to do something over on the Individual Rightness side of the scale. My actions may not make any practical sense to anyone including myself, but the very doing of something for myself seems to bring my whole self back into balance.

I understand that the majority of patients in mental hospitals live a life on the Social Rightness side of this scale. All of their thoughts or worries involve their relation to the group or an individual.



It is interesting to note that people living on the other side, or Individual Rightness, have no concern for the group and are those who today are filling our jails. So you see if you live too much on either side of this scale, you are not only a problem to yourself, but to society as well.

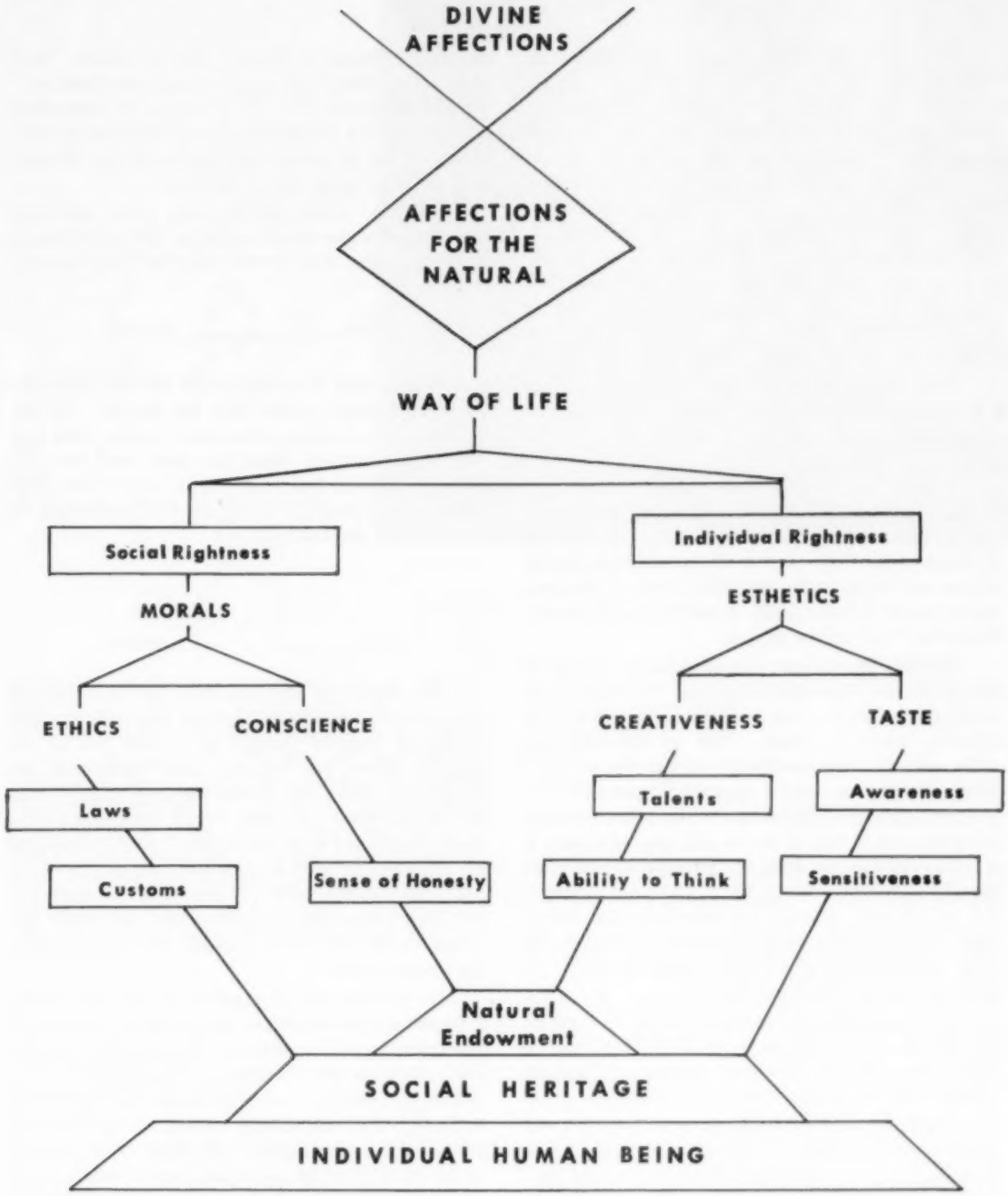
I cannot help but believe that this diagram explains some of the problems we are having with teenage delinquents. All day long they sit in school with Social Rightness being forced into their systems. Unless they are in athletics which calls upon their ingenuity, they end the day completely out of balance, and you can hardly blame them for grabbing the hot rod and tearing up the road. It is a matter of expressing their individualism or bringing their system into balance through Individual Rightness. The school pressure is to make them completely social or conforming beings, while their true selves demand the balancing Individual Rightness.

THERE ARE OTHER signs that point to this lack of balance in our society. It is displayed by some of our painters, sculptors, musicians and even by a few writers. Much of their work is void of care or significance. It is little more than an emotional excursion. If they are experiments, they have real value, but I am sure that historians will point to many of these commercialized products as the unconscious outward expression of the need for individual rightness. Please do not misunderstand me. I believe in abstractions, but they must contribute as much as possible to our living experiences. In other words, they must have integrity.

These days we hear a great deal of talk about a shorter work week and the necessity it will create for more recreational facilities. Naturally recreation plays its part in balanced living, but it is national suicide to refer to it as the great need simply because we have so much free time on our hands. This free time which was once productive must be revived in all areas of creativity, otherwise we will be swallowed by some more aggressive society. It might do some good to change recreational needs to the healthier name "creational" needs.

Referring to the diagram again, I would like to point out that Social Rightness is passive and Individual Rightness is aggressive. The latter, I believe, is stimulated by a love for what you are doing whereas Social Rightness is a matter of keeping peace in the family. All individual advances come from the Individual Rightness side of this scale, and Social Rightness distributes the results.

Now suppose we are in balance—where do we go from there? I think the next step is a matter of a desire to grow. I call it an affection for an idea. If you have this affection, this desire to grow, you must know something about the natural influences and forces involved. Therefore it seems that the next step in this diagram is to have an affection for the natural. Having this affection is quite different from knowing the facts of the subject. You no doubt know people whose minds are filled with factual material and yet they have never created anything. I think it is far more important or creative to have an affection for the idea that two plus two equals four, than to have a mind that says this is a fact.



For example, I find in my own business of architecture that it is dangerous to do too many schools or similar type buildings one after the other. It means filling your mind with the facts of one particular problem and then by force of habit applying the same ideas without reason to the new problem. As you can see this does not lead to a practical creative solution.

Since the beginning of history, man has been intrigued with the idea that growth can extend beyond this physical existence. The very fact that he has an imagination that suggests such an idea is a kind of proof that says it is possible. In this diagram, I called this area of growth Divine Affections. What it really means, I do not know, but I find it one of the most fascinating parts of this diagram. I feel that we should look upon it as the source of all truth and all creativity.

When I first started the practice of architecture, I came to the conclusion that the designing of a building was a simple process of reasoning. All you had to do is gather all the facts together, and then through reasoning, out would come a good building.

One day, after finishing sketches for a house, I reviewed my reasoning for the scheme. While I could at least invent reasons, it came to me as a shock to realize that the things that made this house good did not start with reason. Ideas seemed to come out of the blue and then were recognized as reasonable. This led me to the idea that there must be different ways of thinking. I listed them as three.

First, the kind that says one and one make two. It is the kind of thinking you can put into words. I called this factual thinking, or the "Science" of the subject.

Next, is the kind of thinking that says that a certain flower in a bouquet should be here rather than there; or to dig a hole with a shovel you should do this and not that. It is a kind of thinking that is just as real to you as the first kind; however, you are unable to put it into words. I call it personal thinking, or the "Art" of the subject.

Finally, there is the kind of thinking that gives you an answer when least expected. You have been working on a problem for days and cannot find a satisfactory solution. Then, while at the breakfast table, with no apparent thought of the idea on your mind, suddenly the answer appears. This, I believe, is called "Intuitive Thinking." The most valuable thing about it is that as far as you are concerned, it is a truthful and new idea. Someone else may have thought of it before, but as far as you are concerned, it is an original. For this reason and the fact that it is an honest thought unruled by conformity, it is the most valuable kind of thinking and more should be done to stimulate its development.

As a step toward this development, it seems to me that it would help us if we all clearly realized there were different kinds of thinking. Then we should look for ways to stimulate its action.

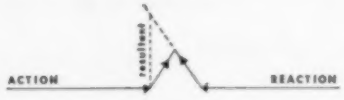
Again I would like to quote my father. He said an inventor must have this attitude, "No matter what he sees, it is just the thing he has been looking for." I would also like to quote my friend, Michael Church, of the University of Michigan. He tells how as a boy he was going to take a trip across the country. Before leaving, his father said this to him—"No matter what you see, look at it with this point of view in mind: 'I'll never see this again'." I think these are both very stimulating points of view.

There is a real force for creative thinking that I find very few people aware of. I first became acquainted with this force in high school in a physics class. It is found in Newton's law of motion, "For every action there is an equal and opposite reaction." When I first heard this law of motion, it impressed me as not only a physical law but a social law as well. Then I began to wonder how can there ever be any progress if this is the way people behave.

I worried about this for many years, and then finally the thought came to me that this was not only a physical law, but it was also the way animals behaved.



It says that if I push down on this table ten pounds, the table pushes back ten pounds. Or for instance, a goat with an idea meets another goat and they lock horns and there they stand until one collapses. All wars and brutal fights involve this principle. This, however, is not the way a thinking or creative man conducts himself.



He begins an idea knowing full well there is going to be a reaction so he waits until this reaction is formed, then he changes his course and as the diagram shows, the reaction must follow and the resultant of these two forces becomes greater than the original force. In other words, the original idea, when confronted with the reaction, absorbs some of the reaction idea with its own and thereby makes the final idea a combination of ideas, which in truth is a new idea. Naturally the greater the intelligence displayed in the action and reaction, the more valuable the resultant idea.

I can give you an example of how this works. I made a motion picture a few years ago which illustrates how this idea can be applied to creating fun. It came about while visiting Higgins Lake, Michigan. Some friends of ours who had been living in Japan called on us fully dressed in Japanese costume. We were delighted with these clothes as well as the stories they told of Japan. More friends joined the party and then a reaction started. We decided to invent our own Japanese costumes. The results were quite successful.

All this led to another action. I decided it was time to get out the movie camera. Without any thought in mind as to a plot or sequence, I started taking pictures. When these were developed, the reaction was the beginning of a story. I took a few more pictures to round out the idea and the movie was the result. As I said before, this shows how



OFFICE OF ALDEN B. DOW,
MIDLAND, MICHIGAN.

action and reaction can be applied to having the best kind of fun. The picture was inspired by an action. It begins and ends with a reaction. This has led me to believe that as a rule comedies start and end in a reaction, whereas tragedies start and end in an action. The reaction leaves you satisfied and that is usually the objective of a comedy. On the other hand, an action always leaves you with the desire for the reaction. When a composition is ended in this way, the real ending is left to the imagination of the reader or observer which generally speaking is the objective of a tragedy.

In a democratic society, action and reaction is not only the rule but the most important value of the process. It is the aggressive, creative force of a democracy and is the great weakness of a society ruled by rigid conformity. Does it always produce the best idea? Sometimes not. On the other hand, I find in my own profession it is more apt to produce an idea superior to the original. This, as I said before, is a matter of the intelligent understanding of what makes quality, or what is value.

I find myself asking the question a hundred times a day: "Is this a good or bad idea?" Or, "What's good about this idea, or what's bad about it?" Can the weak values be separated from the strong values? I believe they can and in the process of doing this we learn about values or what makes quality.

I have a little test that I like to use that divides quality into three parts.

Honesty
More than Sincerity

Humility
Ability to Give and Take Gracefully

Enthusiasm
Ardent Pursuit of Expression

First, is this thing honest? And do not confuse this with sincere. We can accept sincerity as honesty in a child, but not in a mature man for sincerity allows for ignorance, and honesty can be nothing but the truth. Honesty, as a specific property of quality, is difficult to define; however, I believe that everyone is born with an affection for truth so that with very little practice you can learn to detect it in its multiple forms.

Second: A thing of quality must also have what I call humility. By this I mean the ability to give and take gracefully. It seems to be a combination of justice, respect and love. A building that has humility must contribute something to the land it sits on and the land in turn must contribute to the building. A person who has humility contributes something to an acquaintance and in turn he takes something from that acquaintance. A bouquet sitting on a table, if it has humility, contributes something to the table and the table in turn contributes to the bouquet. One is enhanced by the other. It is not the same bouquet if it is placed elsewhere.

Third: Quality must have enthusiasm; call it the ardent pursuit of expression. It's the property we call sparkle, or liveliness in a person or richness in a fabric or piece of architecture. For example, if it is a building serving a complex of services, it isn't just a box with a hole in the side labelled "Entrance." The building itself must reflect its multiple services and through architectural expression one is led to the entrance. If you are looking for this quality in a person, he has a variety of approaches to his subject and is intrigued with all subjects. If it is the bouquet on the table, it has variety.

Of the three properties of value, (Honesty, Humility and Enthusiasm) I find Humility the most precious.

In our household we have found this test to be of value in many ways. Not long ago after finishing dinner, I said to my wife, "My that was a good dinner," and our young daughter, Barbara, spoke up and said, "Father, you mean it had H, H and E?" Honesty, Humility and Enthusiasm). We enjoy discussing things we read and see on the same basis. It is fun and creative to be able to pinpoint the weak or strong qualities of a movie, concert, or most anything using this triad. I wish you would try it.

Now I have given you a variety of thoughts on the subject of creativity, which I take for granted is the production of something pleasing to human beings. There is an antipode of creativeness which fills the vacuum where there is no creativity. This is destructivity. We have all seen this in the behavior of our children. If a child is not doing something creative, such as building with blocks, he is likely pulling the furniture to pieces. This is destructivity filling the vacuum where creativity should be. More should be said about destructivity, but it is not the subject of this paper.

Here we are interested in the constructive side of creativeness and after all of these words, I wonder if it cannot be reduced to just one word—*Care*. I believe that any fine thing must above all else reflect human care, and when this care is uninhibited by conformity and is really profound, it is creative.

Last summer we were up at the Interlochen Music Camp in Michigan. Mrs. Dow visited a class in ballet dancing and heard the instructor tell his young pupils "Please remember that naturalness is not art."* What he meant by this was that it may be perfectly natural to walk across the floor flat-footed with your arms swinging this way and that, but it does not reflect human care.

Several years ago I picked up a piece of ivory that was obviously a scrap piece broken off from some larger section of the tusk. This piece of ivory measured about four inches long, one and one-half inches wide, by one-half inch thick. It was irregular in shape, in fact ugly. But the artist that chose this piece of ivory for a carving took such exquisite care in the forming of a face on its side that I now consider it a prize possession. With great care he transformed what was meaningless into a thing of the greatest meaning, beauty, and I believe this beauty is the reflection of his great affection or love. I cannot question its Honesty, Humility or Enthusiasm. It has them all.

So we might say that if we are going to be creative, all we need is to develop a deep sense of care. First, however, we must have a purpose or a Way of Life that is commensurate with human needs. I believe my outline for this is sound.

It says that human life has no boundaries provided it recognizes the wonderful and beautiful potentialities of the individual human being.

* *"Art is not a natural thing," by Joe Gifford.*

ABSTRACTION

We're living in a frantic abstract age,
And realistic arts are not admired;
So I am going to earnestly engage
To live the abstract life so much desired.

My lot will be planted with trees made of brass;
I'll assemble some scrap-iron in lieu of the grass.
My house will be stark and as bare as can be,
With windowless walls, for now who want to see
A landscape of actual mountains and lakes?
After all, they are nothing but nature's mistakes.
For a wife I will search for a freely-formed shape,
With a bulbous midriff and a head like a grape;
A sort of a Henry Moore creature, you know,
Just a beautiful blob from a tub-full of dough.
And our kids will be formed out of prisms, I guess;
Lovely shapes, though at birth they might cause
some distress.
And a dog I must find of a breed which will be
In repose at my feet just a pile of debris.
Now for colors, I must not forget them, you know;
They should give each observer acute vertigo.
There'll be nauseous mustards, vile greens,
noisome pinks.
Oh, my home will be so damned abstract that it
stinks!

So here's to my wonderful new way of life,
Which I'm going to enjoy to the full I can see,
With an abstract abode, dog and kids and a wife,
Now that I have become an abstract devotee.

RALPH MITCHELL CROSBY, AIA

How to Tell an Architect

EDWIN BATEMAN MORRIS, SR., AIA

THE QUESTION MIGHT ARISE as to the diction in the above title, as to whether I mean how to tell an architect in the absurd sense of how to inform or educate him, or whether I mean to *distinguish* him, an equally absurd thought, since he is already distinguished by being an architect.

Therefore, rather than incite debate among persons who may open the magazine to this page as to what I mean, I let the caption stand as how to tell an architect, passing quickly out of range of the ill-natured quip as to what difference does it make.

Should there actually arise an occasion when you wish to ascertain whether an unidentified person is an architect or not, there is a definite method of procedure. First, you approach the unidentified one from the rear, with Ivy League ease of manner. From this vantage point you will search for indications of the inspirational thinking and the forever reaching onward and upward so characteristic of the architect. Often, discouragingly, there is no such evidence. Indeed, often the reverse is the case, the ears may be flapping outward, denoting an oceanologist, or even worse.

Thereupon, having made careful analysis and having assigned appropriate percentage of probability, you move to the side—of course nonchalantly. I am not sure I approve of the use of that last word, though long words are quite fashionable at the moment. But this word—from the Latin *non* and *caleo*, meaning *not to be warm*—sets up a difficult requirement, especially at certain seasons of the year. But be that as it may, you do achieve by this move what we of the *intelligentsia* refer to as a side elevation.

Thereupon cup the hands and through them study the profile, carefully yet unobstrusively, evaluating especially, with your keenest perception, the nose. If this looks like a nose, you are progressing and you make a favorable notation on the scorecard you are unobstrusively keeping. But it may look like a bulb, which may or may not be bad. But chances are you have an aggravated case of higher mathematics. I would suggest moving on.

Then, if you continue, the acid test! Move around in front, walking backwards rapidly, to keep the subject from colliding with you and, in a very cultured and cultivated manner, peer studiously into his eyes. If he, as he may, notices your presence and hurls an insulting phrase at you, like get-the-blistered-Something-out-of-my-way, it could be the jackpot and you could have your architect. On the other hand, he might just absently fail to observe; and you'd have another nuclear physicist or something.

There is another fine point, understandable to the close student of anatomy. This concerns the dimple, when occurring, in the chin. For, while charming, it has indication of possible failure of the bone structure to join; and an architect, always careful as to construction, would scarcely permit that. Also, insurance men and doubtful characters, like lawyers and Fuller brush men, often achieve spurious magnetism by such a gift of Nature.

A further point of investigation, often important, is politely to push up the subject's hat, and carefully consider the hair line. A receding hair line may indicate genius. On the other hand, there are parking lot attendants and elevator conductors so designed. Of course, one also should consider clothes. If the subject is wearing a shirt of an active shade, and a bright jacket designed like a memorial drinking fountain, you may be coming close. Yet automobile salesmen often go in for high color.

Thus, as analysis progresses, difficulties arise. Unfortunately there is no definite facial pattern which stamps a man undeniably as an architect. Architects often resemble men in other professions. To emphasize the point by delving delicately into personalities, I would say, for example, that Douglas Orr might well be taken for president of the New York Central. And Ned Purves has the undeniable air of a Speaker of the House—elected, of course, from a Philadelphia district. Put a pair of thick-lens spectacles on Talmage Hughes and rotate his necktie clockwise up towards his collarbone and there's a rocket expert. Roy Larson could readily be mistaken for a college president, Dartmouth or Pennsylvania preferred.

Thus, as a final conclusion, it is doubtless best to adopt a safer and more certain course. That is (at the risk of creating a lifelong enemy or inciting immediate indignant reprisal) simply in a thoughtful manner tap the individual on the lapel pleasantly and shout, "Listen, Mac. You an architect?"

We present two different personal viewpoints on Russia

as seen by two delegates to The Fifth

OPENING OF THE CONGRESS IN THE HALL OF THE SOVIETS.



Russian Architects and Russian Architecture

LOUIS G. REDSTONE, AIA

MOSCOW THIS SUMMER was host to the International Congress of Architects. Fifteen hundred architects came from all parts of the world to participate in a week-long seminar and discussions on the theme "Construction and Reconstruction of Towns 1947-1957."

That the Soviet Government attached great importance to the Architects' Congress can be seen from the fact that it opened with great fanfare in the Hall of the Soviets in the Kremlin, that Khrushchev himself spent an hour and a half with the Executive Committee of the Congress and that it ended with a gala garden party at the Kremlin for all delegates and their wives.

As is often the case with international conventions, the American delegation was one of the smallest, about sixteen in all. If we compare the number with 160 from Mexico, 60 from Cuba, 200 from France, only then can we realize our limited participation in this International Convention. The lack in numbers was partly offset, though, by an excellent exhibit sent by The American Institute of Architects. It embraced public buildings, schools, shopping centers and, what was most important to the Russian people, homes and interiors of homes: kitchens and everything relating to the daily life of Americans.

Moscow itself in its physical appearance makes a striking impression. The Kremlin, the historic seat of the early czars and now the seat of the Soviet government, forms the backdrop for the entire city. Architecturally, with its walled enclosure, ancient churches and palace wings, it is interesting and significant as an honest expression of the turbulent Russian past.

Continued on Page 32

and Russian architecture,

Congress of the UIA

Architecture, Food, Wine, Policy, Etc.

A "Three Weeks Expert's" Report on the USSR

HENRY S. CHURCHILL, FAIA
Member of the Executive Committee of the UIA

THE FIFTH CONGRESS of the Union Internationale des Architectes was held in Moscow, 20th to 28th July 1958. Over a thousand architects from about fifty countries participated. The plenary sessions were held in the big auditorium of the University, where all sat patiently listening to the usual dull prepared papers read by their stertorously breathing authors through the excellent simultaneous translation system. Ernest Kump of Schloss Kump and California, and Mr. Churchill of Flatulence, Pennsylvania, received ovations since theirs were the briefest papers. As always, the value of the Congress was in the extremely varied and interesting international contacts made outside the formal meetings, on both technical and social levels.

The University is one of Moscow's five thirty-two-horror-story buildings from Stalin's time. It is (in fact, they are) as though the Wrigley Building in Chicago were set on top of the new State monstrosity in Washington. It is huge, but of such a hugeness—a great massive pile of indecisive aridity. Mr. Khrushchev* was delighted to say he thought it was awful—awful to look at and a plan so complicated he always got lost in it. It is approached by a half-mile-long thousand-foot-wide concourse, bravely decorated with flags of all nations, including ours—on this occasion right next to that of the USSR. It overlooks Moscow and the great new Stadium and recreation fields from a bluff on the Moscow River which is called Lenin Heights.

The eighty-two panel exhibit sponsored by the AIA through its Committee on International Relations was shown in a nearby pavilion, together with the exhibits of twenty-eight other countries. Ours was put together by Peter Blake and Julian Neski, and was paid for by contributions from architects, cooperation of photographers and man-and-woman-power donated by the AIA. It was a big success, easily the best exhibit there and attracting the most attention. Most of the other countries had many more technical displays, consequently with less eye-appeal. Only the Czechs, with a set of really magnificent color enlargements, came anywhere near ours in attention calling. About 40,000 people saw it in Moscow. The entire show has gone to Leningrad, Kiev and Bulgaria, and will probably go to London and Paris. The USSR had two half-size copies made of the entire exhibit (50x50 centimeters each panel) which are traveling throughout the USSR. Our exhibit has been given to the UIA, and about forty panels will become part of its permanent traveling exhibit in Europe.

The United States Information Service purchased a copy of the AIA exhibit for its own use, and there is a file of 8x10 photographs of the panels at the Octagon.

* *Mr. Khrushchev talked architecture and city planning with the Executive Committee for an hour and three-quarters. He was interested, interesting, and well informed. He did not make a speech and he used no notes, and he also listened.*



The Russians are building housing at a fantastic rate. The older cities are literally ringed with miles and miles of eight- and ten-story apartment houses along wide, tree-lined avenues. They are well sited, all have stores, schools, movies and so on within easy distance. They are heated from central plants that serve large areas. Architecturally, they are over-elaborate and pretentiously boring. Not that they are much, if any, worse than our public housing—it is simply that styles change in dullness and monotony as in anything else. Also, of course, there is a difference in emphasis. The Russians believe nothing is too good for the People, hence over-elaboration, ornament and plush esthetics. PHA believes nothing is good for people, and so we have the opposite extreme. Both could learn a lot from the Danes, but why bother?

Russian construction is pretty bad. My best guess is haste and lack of skilled men in the building trades. They have developed, and place major reliance on, a system of pre-stressed concrete panels, three meters square, which are used for bearing walls. The joists are pre-cast and so are stairs. The system is massive and inflexible, but has the great advantage for them that they can build all winter. The surface of the slabs is either stuccoed or has tile stuck on, which falls off. Workmanship, as I said, is poor; in the mechanical trades it is awful. They are just beginning to set up rational cost-accounting, and are starting to really worry about maintenance. And well they might.

There is little or no prefabrication of parts; i.e., window frames, kitchen cabinets, etc., are "special" —and are generally wood, since metal for consumer use is still scarce. This too, is a reason for the predominant use of concrete.

There is little "suburban" building, in our sense. The new apartments are definite extensions of the city; there is no "urban sprawl." Leningrad is experimenting with a few satellite towns. There are, however, a great many new towns, at industrial locations, which from the photographs and plans seem excellent. The types of dwellings are varied, and there is ample open-space—always quite formalized—and of course government buildings, cinemas, and often fine treatment of river-banks and hillside terraces.

There is a definite policy of not producing many automobiles for private use, but of establishing a thorough network of buses and eventually subways. This affects city planning concepts. Intercity transportation is by rail and air rather than by highway.

All architects and engineers are in the employ of the government, but not necessarily the central government. Each province and each major city has its own planning and building department. The architect is held in great esteem, so great that his advice is often taken. "Centralization" is much less than is generally thought. The main policy of what to build and in what part of the Soviet to build it is pretty much determined in Moscow, but after that the "how" of building it is up to the city, and there is less interference with local desires than we suffer from PHA and FHA. My guess is that the generally pompous and dull design is not due to central policy so much as to "cultural lag" on the one hand—the Russians have never had even one great architect, historically their great buildings were designed by Italians—and a lack of materials and workmen on the other.

The Russian architectural magazines seem very good, with plenty of photographs, plans, details and tables and diagrams to illustrate the text.

SO MUCH FOR THAT. The Executive Committee of the UIA traveled together to Leningrad, Sochi and Tblisi. We had a fine time in seven languages,* all of them (including Chinese) spoken by M. Stanek, a Czech delegate, who acted as interpreter when the interpreters got stuck. We were endlessly entertained, the official meetings all being fitted out with

* *The Executive Committee included members from France, Great Britain, Chile, Cuba, USA, USSR, China, Holland, Belgium, Bulgaria, Mexico, and Egypt.*

tables full of mineral water, wine and fruit. Even Mr. Khrushchev's big conference table was set up that way—minus the wine, since it was early in the afternoon. Vodka is drunk only at dinner parties. The Caucasian wine is excellent, that from the Ukraine is foul. The food is plentiful, and not bad if you think English cooking is good. Cocktail parties are like cocktail parties anywhere—people milling around trying to nuzzle up to whoever they think is important. Plenty of caviar, if that's your dish, and pretty good Russian champagne. On the other hand, Russian banquets, what with singing and dancing and toasting are really worthwhile. We were wonderfully entertained by the City Planning Department of Leningrad, by Moscow architects and officials, by the Mayor and architects of Tblisi and many others. In addition we were taken to the theatre, opera, ballet and a Gypsy circus! To say nothing of a trip on the Black Sea in ten speed boats and an outdoor banquet in the Caucasus at which my son counted one hundred and thirty-seven bottles on the table. Officially the Congress ended with an enormous evening garden party in the gardens of the Kremlin, with speeches, dancing, music—the domed churches of the Kremlin a strange background of silvery forms.

Leningrad is one of the beautiful cities of the world. It is a rococo city; planned by Italian architects who had a wonderful sense of spatial relationships. The squares, parks and open spaces flow together in always beautiful and unexpected variation. The older buildings, the palaces along the Neva and in the older city are green, blue or yellow stucco, and with their white trim and touches of red and gold are like nothing so much as a Hussar's uniform, the white frogs and gold medals and red stripes, from an early edition of "Wiener Blut." It is all set in a vague, grey, northern atmosphere—and the almost complete lack of traffic makes the big squares dreamlike, with the frustrated emptiness of a Chirico.

Moscow is not like that. Moscow is like Chicago, full of pep and go and gas and gust. But it has what Chicago has not, the great square of the Kremlin (not Red Square), which, for my money, is the most beautiful square next to St. Mark's. Like St. Mark's, it is irregular and full of surprises from here to there, surprises of silvery or golden domes, changes of surface, color and form and the movement of crowds supplementing the movement of the buildings.

Of course there are slums. They are pretty bad, like slums everywhere. Little is being done about "clearance"—the cities are growing too fast. Tblisi, for instance, has a vast growth of Hooverville tin-can and mud shanties on the hot, wind-swept Nevada-like plain. The secondary cities presumably are not getting their share of new construction, although there is, by any standard, a vast deal of it. But the rate of urban population growth is fantastic.



The Russians have a strong sense of the past. The public buildings—usually old palaces—churches, museums, public parks, are perfectly maintained. They are cleaned, painted, waxed and shined. Peterhof for instance, destroyed by the Germans, has been almost entirely restored, and is delightful again, overlooking the Gulf of Finland, with the fortress of Kronstadt riding like a ship on the horizon. Many fine country palaces have been turned into rest homes, —nostalgic with crystal chandeliers and ancient borax furniture. The architects have a beautiful one outside of Moscow, a place made historic in "War and Peace," and very like a fine southern country house in its columnar dignity. Multitudes of people pour through the public shrines; the Hermitage was as full of people as the Louvre (including the strings of shiny and bewildered school kids), all just as impressed and just as dutifully bored by the endless miles of Art. But what art! The Rembrandts alone are worth the trip.

The next Congress of the UIA will be in London in 1961. I hope that AIA participation will be carefully prepared and that there will be more of our architects there. I also hope a better method of handling the formal conferences will be devised; but nevertheless it is a good thing to talk, however casually, with architects whose problems have to be met in ways that are not our ways. It is also good to find that regardless of political confusion it is possible to exchange ideas on a technical level and also—more important—as human beings.

Continued from Page 28

The Soviet government is preserving and restoring the ancient churches as museums and historical monuments. The Red Square and the Lenin-Stalin Mausoleum just outside of the Kremlin wall serve as the main parade grounds and also as the burial place of their leaders.

As to the city traffic pattern, it revolves around the Kremlin in the form of series of rings. The streets which form the ring are enormously wide. So far two rings are nearly completed with the second ring connecting most of the railroad stations which come into Moscow. The railroad stations are also connected by the now famous Moscow subway system. I understand that other large Russian cities, such as Kiev, are following the ring system. Incidentally this system has been used in other capitals of Europe, such as Vienna, and is being reintroduced in many of our cities in the United States.

The style of architecture the Russians used for the last 30 years has been a monotonous neo-classic. After a flurry of modernism in the late twenties, in which French and American architects took part, the Russians settled down to a new classical period. I heard many explanations for that choice. Most agree that it was Stalin's choice. Stalin thought that the classical style would produce buildings which could immortalize him better than the cold ornament-free modernism of the thirties. So Moscow went all out for ornaments, columns and statues, and as Moscow went, so did the rest of the country, because any sizeable project has to be approved by the Moscow Chief Architect's Office. Some people are of the opinion that the ornamented buildings give the average Russian a certain pride of achievement which compensates him for the hard and drab surroundings of his living quarters. This may also account for making the subway a palatial labyrinth of marble, sculpture, painting and fancy ornament.

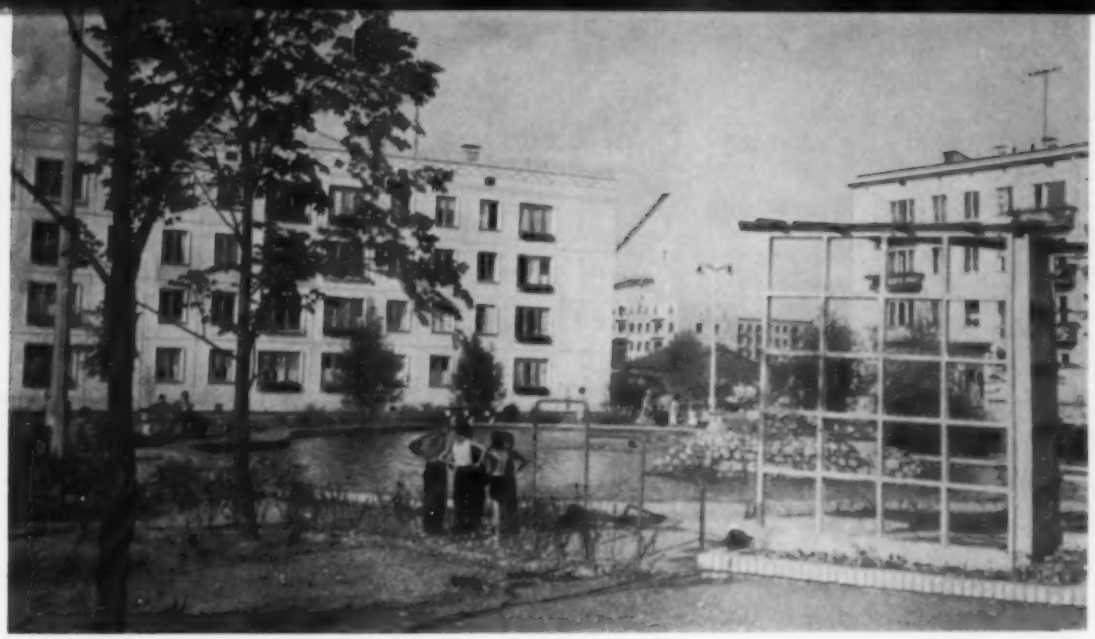
Be that as it may, there is a strong reaction now among the architects against the classical style. Khrushchev himself expressed his dislike for the glittering gingerbread and this will no doubt re-echo throughout the Soviet Union. The Russian architects I talked to were just waiting for a nod from the higher-ups to get started with their own creative abilities. The student work (always a barometer of the future) of the Moscow Institute of Architecture already shows the promise of things to come. Many of their projects compare favorably with the student work in our own architectural schools. Models of proposed buildings indicate a deep desire to develop new construction methods. The graphic presentation of their projects is excellent. The architectural school also has a research department for the study of natural and artificial lighting in buildings, and the equipment used is very scientific. There is only one drawback—none of the creative student work has a chance of acceptance until the government approves the new trend. When ribbed too much about their classicism, the Russian architects came back with the retort: "What about your government? Why, until a few years ago Washington encouraged only classical for American government buildings." So it was only natural that with the government controlling architecture throughout the country, the style would be uniform.

In all, there are about 9000 architects in the Soviet Union (compared with 20,000 in the USA); of these, 1200 are employed in Leningrad and 3000 in Moscow. It is interesting to note that about fifty percent of the architects are women.

Every city has its main office under the supervision of the Chief Architect, which in turn is subdivided into smaller groups of thirty and sixty architects working under assistants. All major projects have to be approved by Moscow. The pressure of the building program is so great that architectural offices often lend their plans to other offices and cities, and the same plans for even large apartment buildings are duplicated over and over again. The Moscow University building can be seen nearly duplicated in other localities in Moscow and other cities of the Soviet Union serving different functions.

In the field of city planning and housing development I found the biggest progress. The housing development and rebuilding of Moscow is enormous. If we consider that Moscow started not so long ago with predominantly wooden structures and see now the multistory concrete buildings and wide boulevards, we can evaluate the tempo of their construction. Last year 18,000,000 square feet of apartment construction and 26 schools were built; this year the program calls for 22,000,000 square feet and 30 schools. We saw row upon row of new apartment buildings going up as far as we could see. The apartments are compact one- and two-bedroom types, and there is a long waiting list of tenants ready to move in. Most of the tenants come from the areas of Moscow condemned for street widening; others come from the movement of the farm population to the city (43% of the population is now urban). The rent is low in relation to the individual earnings; the average earning is from 800 to 1200 rubles (a ruble is 25¢), the rent is 50 rubles.

The latest trends in housing are showing evidence of good city planning. The endless rows of



apartment buildings are giving way to experimental neighborhood units, complete with schools, recreation parks and small shopping centers and community buildings. Experimental work is being done in the layout of traffic patterns and in the techniques of construction. In all, sixteen different types of construction were experimented with. A joint conference was held with the architects, builders and tenants to evaluate results. When the buildings are subordinated to the general scheme of a neighborhood, much more ingenuity is shown. As a result the buildings are simpler and give promise of a contemporary trend to come.

Another field in which the Russians excel is in prefabrication techniques. Large concrete sections of bridges are prefabricated ready to be assembled on location by huge cranes. The same modern erection equipment was evident throughout new construction sites. Conspicuous by its absence was the construction of shopping centers. The distribution and sale of all goods is performed by the government and the number of stores is limited to the minimum and they are located in strategic places. In contrast to the small and unattractive food and variety shops, there is a large department store known as "G.U.M." which merits special attention. In reality it is a glass-covered shopping center. It consists of groups of three-story buildings around open courts, interconnected with passageways and protected from the weather by continuous vaulted glass roofs. The stores are ventilated but not air-conditioned. It was an experience to watch the teeming crowds of shoppers lugging their purchases with them.

Architectural education is taken very seriously. A high-school graduate has to take entrance examinations to the Architectural School. Besides the general subjects, the deciding factors for his acceptance are his excellence in freehand drawing and his inclination toward design and mathematics. The Architectural School offers degrees in three main branches of architecture: (1) Housing and Public Buildings, (2) Industrial Buildings and (3) City Planning and Landscaping. The School has a fine library and receives magazines from most of the countries of the world, including the USA.

In my opinion, the vast progress made by the Russians in science, as compared with the standstill in architecture, can only be explained by the fact that when left alone to develop freely his creative abilities, the Russian is achieving great results; when stymied by rigid rules and arbitrary decrees and the selective tastes of the top leadership, the backward results are evident.

I returned from my trip with the conviction that the oft-repeated saying that the world is getting smaller and smaller does not apply any more. While it is true that the airplane has made physical distances closer, it also has opened up new worlds for men and a realization of how little one knows about other nations, their culture and their life. No books or newspaper articles can substitute for personal contact and personal observation.

We arrived in Moscow right after the tumultuous Russian demonstrations against the American Embassy, in which most of the window panes were broken and ink splashed over the buildings, and headlines and posters carried anti-American warnings to get out of Lebanon. But to our surprise we found friendly reception and hospitality everywhere—on the streets, in buses, from officials, and especially among our Russian architects-hosts.

The Third Exhibition of

Architectural Photography

The Third Exhibition of Architectural Photography sponsored by the AIA opened with a reception at The Octagon on January 19th.

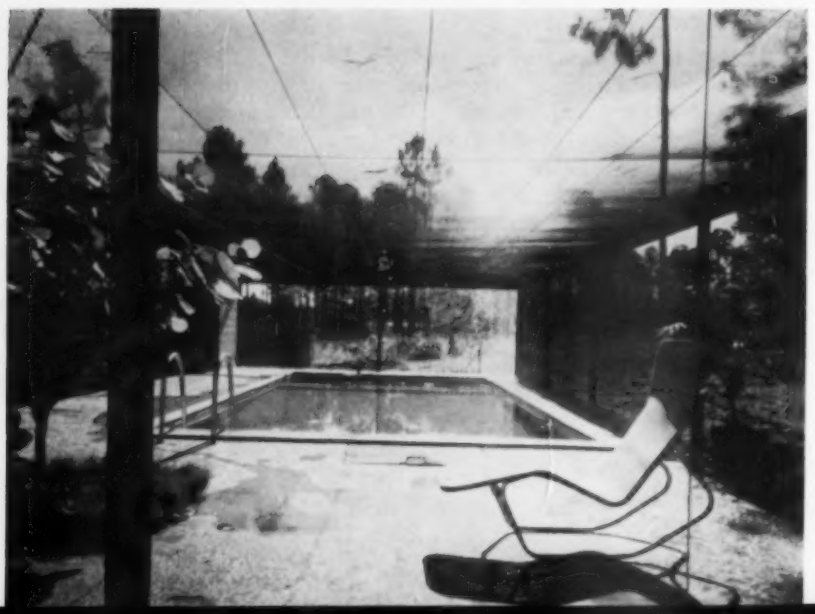
The purpose of the exhibition is to recognize and encourage work in the field of architectural photography and to demonstrate its value to the profession. The Architectural Photographers' Association has cooperated with the Institute in developing plans for the exhibition.

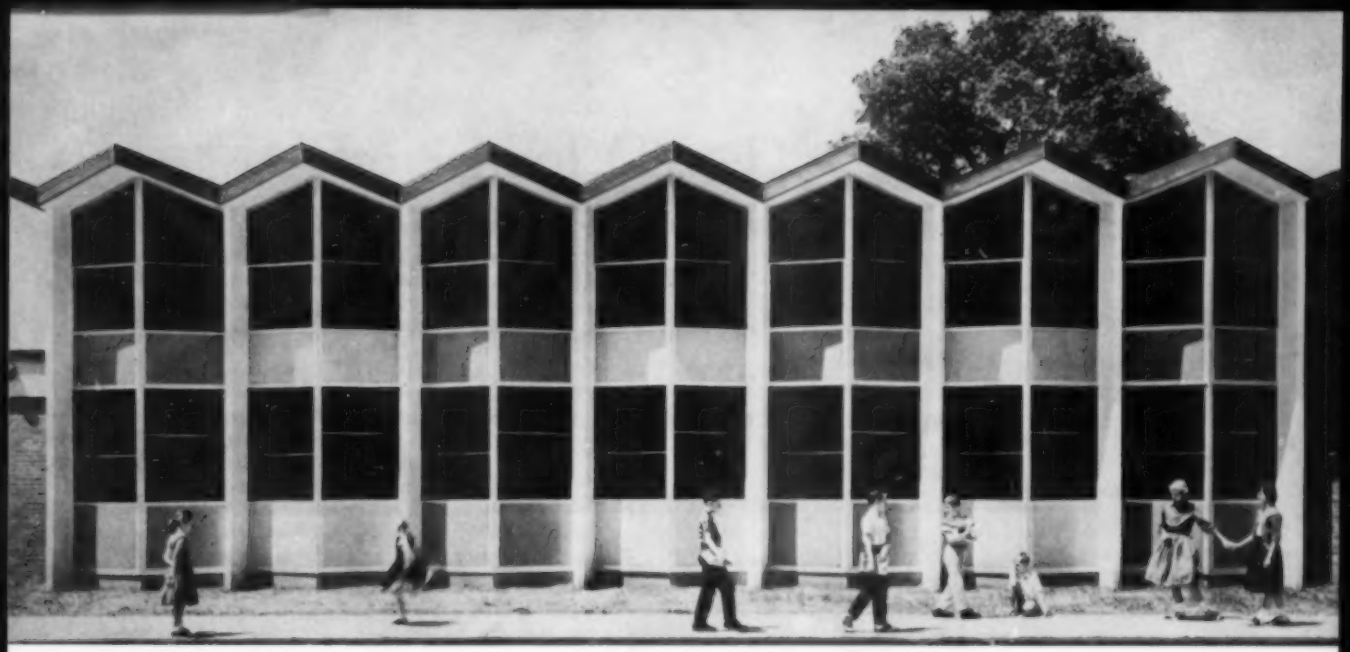
Architectural photography provides an important means of communication between the architect and the public. The sponsors of the exhibition hope that photographers will continue to look for new ways of seeing architecture and a fresh approach to the problem of presenting the architect's design and purpose.

The Traveling Exhibition Service of the Smithsonian Institution will again circulate the exhibition after its showing at The Octagon.

Members of the jury of selection were: Lionel Freedman, President of the Architectural Photographers' Association; G. E. Kidder Smith, AIA and Nicholas Satterlee, AIA.

HONORABLE MENTION
NIMS-CONRAD HOUSE,
MIAMI, FLA.
RUFUS NIMS, ARCHITECT
PHOTOGRAPH BY HANK KOCH





HONORABLE MENTION
HIGH SCHOOL AUDITORIUM, WAYNE, MICHIGAN, EBERLE M. SMITH ASSOCIATES, INC. ARCHITECTS, DETROIT, MICHIGAN.
PHOTOGRAPH BY KORAB BALTAZAR, BIRMINGHAM, MICHIGAN.



FIRST PRIZE
MAY D & F DEPARTMENT STORE,
DENVER, COLO.
I. M. PEI & ASSOC., N. Y., ARCHITECTS
KETCHAM & SHARP ASSOCIATES
PHOTOGRAPH BY WARREN H. REYNOLDS,
INFINITY, INC., MINNEAPOLIS, MINN.



SECOND PRIZE
HICKORY GROVE ELEMENTARY SCHOOL,
BLOOMFIELD HILLS, MICH., SMITH,
TARAPATA AND MacMAHON INC.,
ARCHITECTS, BIRMINGHAM, MICHIGAN.

Architectural Photography *(continued)*



NICHOLAS SATTERLEE, AIA

In making a selection among photographs submitted, as an architect member of the jury, I felt the following criterion to be of basic importance: that the photographer have an understanding of and sympathy with the architectural design to enable him to select the most effective vantage point for his shot, so that the intent and spirit of the design, as carried out by the relation of the building to its site or surroundings, by the massing, by the articulation of members, handling of spaces and selection of materials, is not only shown to best advantage but is highlighted.

THIRD PRIZE
ALCOA CAREFREE HOME,
BELLEVUE, WASHINGTON.
CHARLES M. GOODMAN, ASSOCIATES,
ARCHITECTS, WASHINGTON, D. C.
PHOTOGRAPH BY ART HUPY,
SEATTLE, WASHINGTON.

Judges' Comments

G. E. KIDDER SMITH, AIA

I was looking primarily for vision and spontaneity in an interpretation of architectural space. A revealing modelling of light and shade, human occupancy or activity, and high technical competence were important secondary qualities.

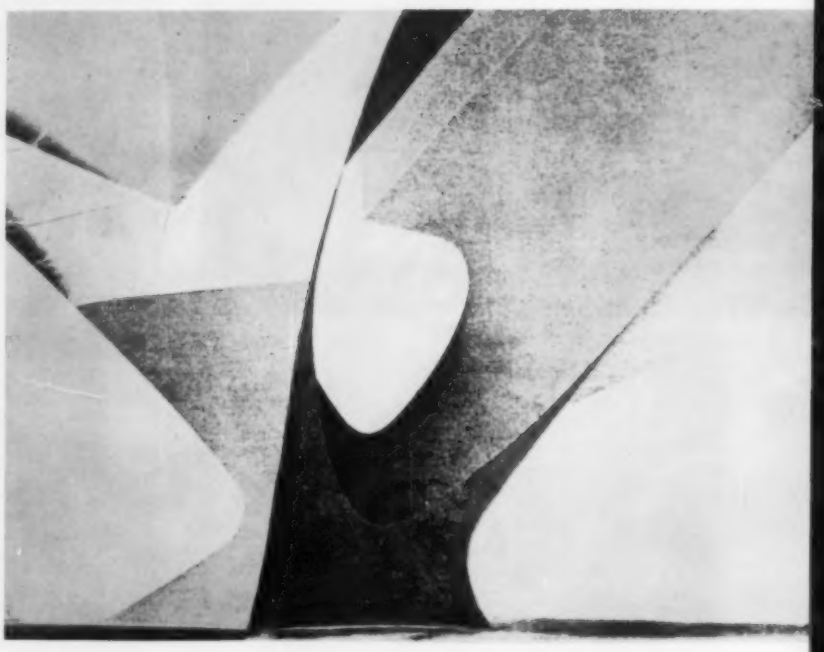
LIONEL FREEDMAN

The best architectural photographs were primarily dramatic statements of architecture utilizing the full range of the photographer's craft; i.e. selectivity of viewpoint, understanding of the architect's intent, rigorous and flawless technique and good graphic design sense.

The people in the photographs were spontaneously and pertinently used to sympathetically explain and enliven the architecture. It's the skillful fusion of all these elements which is the essence of good architectural photography.

The honorable mentions were selected, in my mind, primarily for their freshness of approach and poster like graphic presentation as uniquely personal expressions.

HONORABLE MENTION
TWA TERMINAL (MODEL) NEW YORK.
EERO SAARINEN & ASSOC., ARCHITECTS,
BLOOMFIELD HILLS, MICHIGAN.
PHOTOGRAPH BY KORAB BALTAZAR,
BIRMINGHAM, MICHIGAN.



The School Cost Discussion

New York is not America, but it faces the same problems as do most American communities. For that reason we feel justified in giving space in the JOURNAL *to the repercussions from City Comptroller Lawrence E. Gerosa's attack on the New York City Board of Education, accusing it of wasting $100 million in the past eight years on "lavish embellishments" and "needless" fees to private architects. The story appeared in the nation's newspapers in late November, and was reported to Institute members in the December 15th issue of the* MEMO.

We open with a delicious and devastating editorial comment from the Notes and Comments of "The Talk of the Town" in the NEW YORKER *for November 29th, and then follow with several letters and quotes:*

THE OTHER DAY, the *Daily News*, an exponent of visual humor headed its lead editorial "School Discussion." Mayor Wagner and the New York City Board of Education want an amendment to the state constitution that will let the city borrow five hundred million dollars more than the legally fixed debt limit, to catch up with a great lag in school construction, and the *News* is fighting the amendment—possibly because it fears that a general rise in the level of education would constitute a threat to its circulation, now the largest in the country. "George Washington, Patrick Henry, Abraham Lincoln and various other noteworthy Americans got pretty well educated in surroundings that couldn't be called palatial," the *News* said. Well, Samson grew up to be a big, strong boy in a day when there were no hospitals, but that is scarcely a reason to stop building them. The hero of the editorial was City Comptroller Lawrence E. Gerosa. (Washington, Henry, and Lincoln were just rung in to set him off, like seed pearls around a genuine zircon.) Mr. Gerosa had issued a report that, according to a story in the *Times*, "was considered at City Hall an effort to deliver a body blow—perhaps a knockout punch" to any new bond issue for school construction. In the report, the Comptroller said he was against it because the Board of Education had been extravagant in planning the schools it had recently built; it had, for example, retained professional architects to design buildings for specific sites, instead of using a standard set of plans for all. As another example, he noted that "it has become the practice" to put "a sink cabinet approximately six feet long and a drinking fountain in each classroom," at a cost of about a thousand dollars a classroom. It seems to us, remembering our public-school days long ago, one of our best ideas we've ever heard of. We recall the quarter hours of squirming, obsessed by a thirst that was not for knowledge, before we worked up nerve to ask the teacher's permission to go to the drinking fountain in the hall. After that, it required minutes to get recognition from the chair, who was not as sympathetic as in more clearly recognized emergencies, and who had to deal with a dozen petitions per class period. We also remember the modelling clay that gummed our hands in the lower grades; the crayon and water color, farther along; the ink the whole way through—all now susceptible to treatment without a meandering journey to the troughs in the basement. "Some seven hundred or more existing [older] schools will struggle along without such conveniences," said the Spartan Mr. Gerosa, who we bet has plumbing on the floor where *he* works. A thousand dollars divided by thirty or forty children and by thirty years, which is how long any sink or drinking fountain ought to last, works out to a nickel or so per beneficiary, and to one ten-billionth of a cent for every squirm averted. What really nobbed us, though, was the Comptroller's recommendation text "architectural embellishments and unusual and costly designs" be "eliminated." Let a man put up the most embellished office building that ever gleamed on Park Avenue and nobody, least of all the income-tax authorities, will deny that the embellishment helps him to sell soap. But learning, according to Mr. Gerosa, must be put across in a plain wrapper, like some disgraceful kind of patent medicine; the child must be repelled from the start. One of the man's wildest bleats was occasioned by the use of colored brick, instead, we suppose, of oatmeal gray, which is a couple of dollars a ton cheaper. In an age when people fall limply into molds, there must be nothing "unusual" about the design of the school the child attends, because that sort of thing might discourage him from becoming a uniform-quality, boneless, cellophane-wrapped, tabloid-reading party-machine voter. As for "costliness," the third of the sins the Comptroller cited, it is hard to define. If we could get a new building so good that pupils would run to look at it, it would be cheap at the price of four office buildings and a pickle factory.

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THE NEW YORKER MAGAZINE, INC.

On December 10th, the Board of Education released a voluminous and detailed reply to the charges, which can be only briefly quoted here:

IN THE THIRD chapter of its statement the Board says that it has approved "several hundred items of economy" in plan and materials involving more than three hundred postwar projects, and that it is making "every effort" to spend the public funds entrusted to it "wisely and economically" and at the same

time "bring about a school plant of dignified excellence."

The report consists of two main areas, design economies and esthetics, and describes methods by which "maximum returns are being obtained for every dollar of construction outlay."

In the matter of esthetics, the Board emphasizes the role of the Municipal Art Commission in approving school art and states:

"The Board of Education quite properly relies—and it must rely—on the artistic judgment of experts. It does not attempt to substitute its own esthetic judgment for that of established authority."

A limited amount of art in the form of murals, mosaics and sculpture is included in some new school buildings to offset the severity of straightforward structural design and also to help children develop "appreciation, attitudes and skills" in the different art mediums, the report states. These items must receive the written approval of the Art Commission, along with approval of every design and completed building in the Board's postwar program.

"Wheras building projects under the auspices of the Federal Government are permitted to use for art an allotment of $1 in $10," the report concludes, "the total cost of the art work installed in the new schools of New York City in recent years represents an expenditure of less than 1¢ in $10."

The Art Commission of the City of New York is an official body which has the duty of approving or disapproving the design of every structure built by the city and of every work of art commissioned or purchased by the city. The Commission wrote the following letter to Mayor Wagner:

Hon. Robert F. Wagner,
Mayor of the City of New York,
City Hall,
New York 7, N. Y.

Dear Sir:

The City Comptroller, Mr. Lawrence F. Gerosa, has recently accused the Board of Education of wasting $100,000,000 in school construction funds over the last seven years.

Some of these charges apply to sub-contracts and architects' fees, and with these the Art Commission is not concerned, but it is very much concerned with the charge that the taxpayers' money has been squandered on mural decoration, on sculpture and on extravagant architectural designs, all of which Mr. Gerosa considers lavish embellishment.

The Art Commission wishes to go on record as approving whole-heartedly the efforts of the Board of Education to build schools that fulfil the requirements of all good building—commodity, firmness and delight. The members of the Art Commission have often disagreed among themselves as to what is beautiful, what will or will not cause delight, but they have never doubted for a moment that our school buildings should reflect the curiosity, the vigor, and the appetite for beauty which characterizes our civilization.

Mr. Gerosa also complains that the schools are not built according to any standard plan. The Art Commission supports and encourages diversity of architecture in our school buildings. It does not believe that any plan, however good, can be made to fit every site. Certainly there are general elements of design that can and indeed have been reproduced effectively in more than one school, but it has always recommended that the Board of Education should resist the temptation to use one set of plans for all the schools in the city.

The Art Commission does not believe, any more than Mr. Gerosa does, in "fancy trimmings," but it does believe that the young people of our city are entitled to schools that offer them something more than convenient, comfortable and sanitary surroundings. It is our belief that expenditures for decorations and variety in our school buildings have been, if anything, too modest. The members of the Art Commission believe that the Board of Education is fully justified in its efforts to provide schools that are in keeping with the esthetic demands of our time, and the prestige of our city.

Respectfully submitted,

ARNOLD WHITRIDGE, President,
Trustee of the Metropolitan Museum of Art

NEWBOLD MORRIS, Vice-President,
Trustee of the New York Public Library

FRANCIS T. CHRISTY,
Trustee of the Brooklyn Institute of Arts and Sciences

EDWARD R FINCH, JR.,
Layman Member

AUGUST HECKSCHER,
Layman Member

WHITNEY NORTH SEYMOUR,
Layman Member

FREDERICK J. WOODBRIDGE,
Architect

RICHARD K. WEBEL,
Landscape Architect

PAUL MANSHIP, Sculptor

ALFRED D. CRIMI, Painter

The New York Chapter, AIA, sent the following letter to Mayor Wagner:

November 18, 1958
New York, N. Y.

My dear Mayor Wagner:

On behalf of the New York Chapter, American Institute of Architects, I wish to protest in the most emphatic and strenuous terms the remarks made by Controller Lawrence E. Gerosa as reported in last Sunday's press and at yesterday's hearing before the Board of Estimate concerning alleged gross waste and extravagance against the Board of Education in its recent and current school building program.

Inferentially, Mr. Gerosa's charges are sharply directed against the commissioning of our leading private architectural firms by the Board of Education as encouraging waste and extravagance.

This accusation is characteristic of an uninformed point of view as to basic economical planning—a specialty of the well-trained and thoroughly experienced architectural firm. Besides, the private architect, in closest collaboration with his consulting engineers and with his client—in this case, the Board of

Education—can qualify as no one else in the specialized realm of distinguished design and of wise selection of materials and equipment directly related to low maintenance costs. Indeed, in the taxpayers' interests of long-range economy, it is shortsighted to build ugly, cheap and questionably planned schools with little regard to function, cheerfulness and upkeep.

The taxpayers of New York City may now judge for themselves the attractiveness and efficiency of the new schools recently completed—designed by private architects. The important beneficiaries are their children now attending these schools.

The New York Chapter intends to support to the limit the Board of Education's rebuttal to Mr. Gerosa's allegations.

Respectfully yours,

L. BANCEL LAFARGE, President
New York Chapter, AIA

The National Sculpture Society wrote as follows to Comptroller Gerosa:

Dear Mr. Gerosa:

In your current controversy with the Board of Education, *The New York Times*, in its November 21st issue, reported a statement by you: "What the City needs are good scholars, not statues and sculpture."

This is a sad remark, coming from a person in your position: particularly unexpected from one whose forebears originated in Italy—that culture-rich land which gave the world Michelangelo, Da Vinci, Raphael and a host of other artists and whose great economic asset is its art.

What is scholarship, Mr. Gerosa, without appreciation of the arts? How do we want our children to develop? Is there not enough accent on the magic of mechanics and weapons of war? Do we want our children to be brutal automatons?

You are concerned with the saving of a few thousand dollars. Children who become interested in art by seeing it around them are far less likely to become juvenile delinquents than those who attend school in barren, ugly, overcrowded buildings. How much is it costing the city to correct juvenile delinquency? How much for prisons?

The wealthier parents make certain that their children come in contact with culture even if they have to take a plane or ship to do it. It is the underprivileged that you would deprive of association with the finer things of life. Are you not penny-wise and dollar foolish?

Are you trying to undo all the fine work of the culture-minded organizations who have spent many years of effort to make the city appreciative of art? Are you not giving our enemies abroad the ammunition they seek when they call us materialistic?

Do not forget, Mr. Gerosa, that the glory of Greece, the grandeur of Rome, the beauty of Paris, Florence and Vienna remain as jewels in the crown of civilization because of the great part their sculpture played centuries after dynasties, dictators and other temporary trivialities have been completely forgotten.

Very truly yours,

ADOLPH BLOCK
Secretary, National Sculpture Society
Editor, National Sculpture Review
Vice-President, Allied Artists of America
Sculptor Member, Board of Directors, The Fine Arts Federation of New York

And finally, The Municipal Art Society wrote the following letter to the Editor of THE NEW YORK TIMES:

Dear Sir:

We have read with concern recent attacks upon the design of some of the new schools in New York City because they seem to us to disregard important educational values.

The design of some schools has been criticized because they were separately conceived by their architects and were not produced on an identical pattern. Our observation has been that the various designs have been extremely efficient for school purposes; we do not think they should be identical. In our view it would be too bad to add to existing regimentation of metropolitan surroundings by having all the new schools substantially alike, even if that were possible in view of differences in terrain, etc. The Art Commission of the City of Ney York, the body officially charged with passing on the artistic qualities of public buildings, has, as we understand, encouraged the Board of Education to employ variations in design in order to avoid assembly-line appearance, and we thoroughly agree with this position.

Some of the criticisms of the new schools have been directed at the very modest decorations in the form of murals and sculpture which have been incorporated into some of them. Far from being a subject of criticism, this should be encouraged. We see no reason to suppose that there has been any waste of public money in connection with any of these modest decorations. We believe that some embellishment of the generally rather stark modern architectural design is important to bring some beauty to the school children. We hope that our fellow citizens will support those responsible for school design in encouraging the use of decorative arts.

Beyond these criticisms, we are concerned that some of the critics seem to confuse educational facilities with penal institutions. If education in this great city must be conducted in the barest sort of surroundings, kept as ugly as possible, the coming generation can hardly be expected to absorb and understand qualities of our culture so necessary to make good citizens. We believe that every reasonable facility should be provided to teach the children that beauty and the arts are an essential and rewarding part of American life and the spirit of a modern metropolis. We do not believe that the children of New York should be forced to see their schools as so lacking in attractiveness that they consider them the physical equivalent of houses of detention.

Respectfully,

GEORGE HOPPER FITCH, President
The Municipal Art Society

The Strange Case of the

BYRON C. BLOOMFIELD
Executive Director, Modular Building Standards Association

As presented to the students from 68 schools of architecture attending the Fourth Annual Student Forum at The Octagon.



MEDICAL CENTER, WEST VIRGINIA UNIVERSITY, MORGANTOWN, W. VA., C. E. SILLING & ASSOC., ARCHITECTS; SCHMIDT, GARDEN & ERICKSON, ASSOCIATE ARCHITECTS & ENGINEERS; JAMES A. HAMILTON ASSOC., HOSPITAL CONSULTANTS.

New Idea

In the middle eighteen hundred's, the first bathtub in the United States was unveiled in Cincinnati at a Christmas party for the sole purpose of amusing guests who were asked to guess its purpose. To be helpful, historians report, the host gave a partial demonstration of the device. It seems fair to assume that the tub was not the only flowing bowl available for the occasion.

Not until many years later, after the advocates of this new facility had received the criticism that meets any profound change in human habit, did it become socially acceptable to admit ownership of a bathtub. It was not until 1860 that the finest hotel in New York claimed as many as three bathtubs, a span of eighteen years between its Christmas party debut and public acceptance in America.

To get to the case in point, let's discuss another of man's new ideas, its soundness, and why you should contribute to its universal acceptance by the construction industry.

The idea was generated by Albert Farwell Bemis, a New England industrialist. His modular concept of building construction and the subsequent development of a dimensioning method for construction materials became what we now call "modular measure."

Bemis' idea was formulated in 1921. A Modular Service Association was established in 1936 to develop the concept further and encourage industry acceptance. In 1938, the AIA and the Producers' Council sponsored a project under the banner of The American Standards Association to develop and coordinate dimensional standards for nineteen categories of building materials. The idea was simple—make all building materials fit each other so they may be joined at the site with a minimum of cutting and fitting.

Today, however, many materials still have dimensions which have grown out of circumstances peculiar to their own segments of the construction industry. Conventional plywood and sheetrock dimensions, for instance, are based on a curious set of events.

The first saw-mills, of necessity, used the materials at hand in the most economical and logical fashion. Big trees were sawed into long planks. But the smaller sections in the upper parts of the timber were usually either crooked or too small for planks. To avoid waste, this portion was sawed into firewood of four-foot lengths to provide normal cords 4′ x 4′ x 8″. Lath for plastering was cut from this handy four-foot stock and studs were placed in a fashion to best utilize the lath—16″ on center, allowing each lath to end on every third stud, or every 48″. Sixteen-inch stud-spacing thus became the convention and later products evolved accordingly.

Windows have undergone a similar evolution. Glass was available in one-inch increments without price penalty. Windows were composed of mill-sized mullions and muntins. The outside dimensions of the entire window became an additive function of the number of panes of glass and the number of mullions or muntins—totally unrelated to adjacent materials such as brick, and certainly unrelated to newer materials such as prefinished plywoods, and panelized component construction.

Obvious reasoning that dimensional coordination was a *must* before real advancements could be made in the building construction field provided encouragement for further developments. The Housing and Home Finance Agency spent $70,000 to develop the system as related to housing. In 1949, William Demarest became the AIA's Secretary for Modular Coordination. In 1950, the National Association of Home Builders joined with the AIA and Producers' Council to expedite the development of standards. In 1956, the Associated General Contractors became the fourth sponsor.

The four organizations decided the time had arrived to launch a unified and four-pronged attack within the construction industry. They formed and sponsored the Modular Building Standards Association last year. It acquired its first permanent staff three months ago. It has a Board of Directors of top-flight and experienced men in the construction industry—two architects (both Fellows of the AIA); a highly successful contractor; the President of The Barrett Division of The Allied Chemical Corpora-

tion (who is also currently President of the Producers' Council), and a progressive homebuilder who built one of the two research homes erected this year by NAHB. (He is also an officer of NAHB.)

For the first time, we have behind this movement the four associations representing all phases of the industry from design through construction. We have the capable talents of the staffs of these organizations to draw on for advice and assistance. Each has complete coverage of its membership with its publications. With this backing, we can't help but be optimistic that overwhelming acceptance of Mr. Bemis' 1921 concept is in the very near future.

Most of you probably already know the simple rules of modular drafting. They involve three things —the use of a *grid* to be shown (at least in part) on the drawings, *dots*, and *arrows*. These are all shown in our booklet entitled "Modular Measure Works for Producers, Architects, and Builders." The booklet incidentally, was prepared by Walter A. Taylor, FAIA, Director of the AIA's Department of Education and Research.

The 1956 Office Practice Survey indicated, surprisingly, that one out of five architectural firms were already using modular drafting on some of their work. We have been trying to find out who those architects are, and are just now beginning to get results. The reason for the difficulty in identifying them is obvious. It is also meaningful. *You can't tell by looking at the completed buildings.* The accompanying illustrations involve buildings erected from modular working drawings utilizing the principles of the dot, the arrow, and the grid.

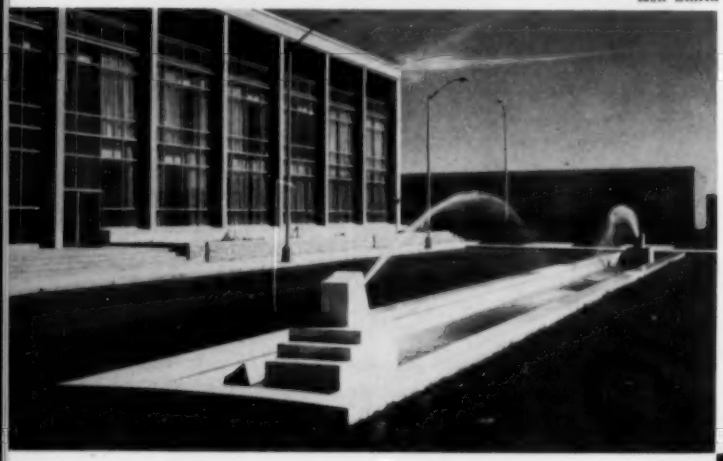
James M. Hunter, FAIA, Chairman of the AIA Committee on the Profession, told the students attending the AIA Student Forum last year that architecture is the second oldest profession. He didn't elaborate, but in any profession of such antiquity whose practices extend back to the Romans and the Greeks, there have to be some mighty good reasons for making changes.

Briefly, these are the reasons for using modular measure:

1. Fewer drafting errors
2. Clearer detailing
3. Faster production of construction documents
4. Materials are coordinated
5. Closer cost estimating
6. Quicker job-site layout
7. Improved construction quality
8. All of the above, while maintaining design freedom

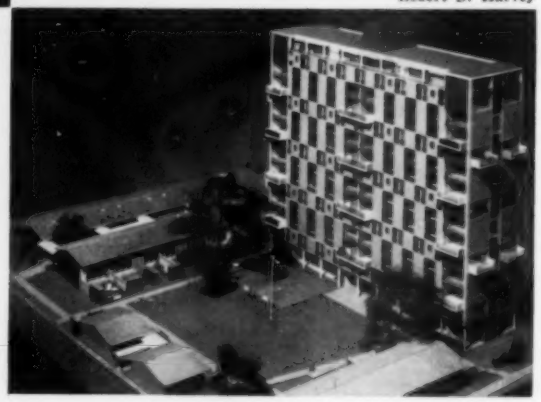
One major advantage to students and future employers in architectural offices is that with modular measure as a tool, an inexperienced employee can

Ken Smith



PENNSYLVANIA TURNPIKE AUTHORITY ADMINISTRATION BUILDING, HARRISBURG, PA., LAWRIE & GREEN, ARCHITECTS, HARRISBURG, PA.

Robert D. Harvey



REDEVELOPMENT HOUSING FOR LAUREL, CINCINNATI, OHIO, CARL KOCH, ARCHITECTS, CAMBRIDGE, MASSACHUSETTS. JAMES ALLAN & ASSOC., CINCINNATI, OHIO, ASSOCIATED ARCHITECTS.

become productive immediately on the drafting board. You do not have to worry about which dimensions to reference to which point as normally learned by years on the board and familiarity with construction techniques and sequences. This new tool enables employers to realize an immediate financial profit from a recent graduate. At the same time, the new man will be relieved of the frustrations of thinking he isn't carrying his share of the office load.

Bill Marcum, associate of the firm of C. E. Silling and Associates, recently summed up their experience with modular measure:

"In our drafting room, we use our heads to organize a simple, straightforward, and complete factual statement of the construction requirements with a minimum of waste motion. We divide up the work, set up cross-checks for each other, draw neatly and to scale, and examine and delineate completely every part of the building *once,* in adequate detail. We try hard not to be repetitive.

"We found modular measure to be a great advantage in organizing our minds and disciplining our efforts. Soon we found its orderly procedures affecting our method of presenting general and specific notes on the drawings, and the contents of schedules. The flattering approval of our methods by contractors and suppliers is best exemplified in their sharp pricing of the work. I do not know of a single instance where one of our jobs was shelved because we exceeded the budget. Complete structural and finish schedules accompany our preliminary sketches and budget estimates. Almost always the completed building finds an unexpended balance in the owner's account.

"We have found that working drawings with modular measure cuts total man hours approximately 15 to 25 per cent on any job. This speed enables us to get plans and elevations to our mechanical and structural engineers soon after a job starts.

"We draw on pencil tracing cloth for printing of contract documents. All detail study is freehand sketches then applied to scale on cloth.

"Modular measure is the only system in which the architect, the engineer and the contractor think alike."

Modular measure is no longer a "chicken and egg" proposition. It is here now. Enough modular materials are available to make it profitable to design modular buildings. Thus there is no reason to wait any longer for manufacturers to produce modular materials before using modular dimensioning.

While architects are converting to modular drafting practices, MBSA will continue to encourage the rest of the manufacturers to convert their production to modular units. Our job won't take much longer—just how long depends entirely on you.

ROBERT B. BLACK RESIDENCE, WASHINGTON, D. C., BROWN & WRIGHT ASSOCIATES, ARCHITECTS, WASHINGTON, D. C.
Photo by Fred J. Maroon





CECIL ALEXANDER, AIA

Through the Martini

Being the principal part of an address delivered by Alfred Bendiner, FAIA *to the Fourth Annual Student Forum at The Octagon, November 25th, 1958.*

BOYS AND GIRLS of the umpteenth conference of the AIA or wherever I am right now: About a month ago, the Boston Voice of the Institute called me to say that I was chosen, along with Ed Stone and Marcel Janos Breuer to address you. I accepted right away, and I don't know what happened to the other two guys.

You don't know what it means to a boy to be invited here, because no self-respecting dean would invite me near his kids—in fact, I haven't been inside an architectural school since they graduated me along with all the casts of the Ionic columns way back in A.D. 1922.

I am sure it is all better now, and you are the Brave New World and facing the future with high hopes and a steady arm—of course, my advice to you is to politely mourn the last couple of generations as a bad dream, wipe off that glassy stare, and give us a new architecture which will prove the old adage that the last period was the one with the bad taste. You are the up-and-coming crowd who, I hope, are going to get off your plastic seats and delicate shiny underpinnings and stop looking at the world through horn-rimmed, inch-thick lenses capped with an undertaker's pork-pie hat.

In other words, I am depending on you ladies and gents to be yourselves, and forty years from now maybe you will have enough character to stand up here and tell 'em. I wish at least Ed Stone was here to prove my point. Ed is a character. As an old Atelier of the American Academy in Rome boy, I cut my teeth with him measuring the Cancelleria and Massimi Palaces—two palaces you probably never heard of. From those fine details, nursed along on Italian wines and the pleasures of France, he and Skidmore and a bunch of others moved forward to be the individuals of my generation.

Unfortunately, you have been on a starvation diet of Lally columns and plate glass, slippery floors, ersatz materials, and miles of imitations and shiny curtain walls. But just because something flashes, it ain't always the best, and although a natural material like stone, wood or brick has been used before, it doesn't necessarily follow that it is corny and old-fashioned to use them again.

Here in Washington D. C., if you put your teachers' prejudices away and look carefully at the town, you will find a lot to interest and amuse you. Underneath it all is a fine tribute to the architects, sculptors, painters and craftsmen who combined to give us some character.

Without all these changes in pace, variations in material, carvings and ornamentation, the joint would be as dull as most modern cities are getting to be and it's up to you gathered here to realize that you have the load imposed on you by your dull, almost characterless, immediate predecessors.

I was just coming here to try to put you in good humor, tell a couple of old stories and make my getaway before you realized that nothing I said was of significance, importance, or worthy of remembering, but somebody sent me a copy of the latest magazines and told me to bone up on what's going on in the world. Well, I read a lot of them and all the old architectural dogs are belly-aching at so much a word, and it all amounts to the same old pap about trying to sell modern architecture to the public, fed up on busting their noses going

Glass to the Brave New Student World

through glass doors which they didn't think were there at all.

Gropius cries bitter tears about the death of the individual, when who started killing us off but the Bauhaus boys. Belluschi wants everybody to get religion in clammy concrete when they are happier in warm stained glass and carved woods. Temko blames it all on Skidmore, Owings and Merrill, and wants everything done by FLW; and Henry Hope Reed Jr. wants us all back in the Beaux Arts complete with swags and garlands and smelly curtains and lace panties. The orator at the Convention pointed a manicured finger and waved his marcels and said we were nothing now but the Christmas wrapping on the package deal.

Of course, as I hear from all my peptic ulcer cronies, the big trouble with you all is that you don't know how to draw—and I might add my private observation, that you don't know how to drink, either.

Of course it isn't all your fault. What I mean is that you are badly handicapped in fundamentals and the fault lies in the use of the camera and its attachments. You can't learn proportion of anything by taking a photograph of it any more than you can learn to play the piano by listening to the record. You must sit and patiently draw an object and then go and measure it and then redraw it. It's as tedious as the scales and the only relief is sitting at a table with a beer or equal and gradually assimilating both objects at the same time. It's as fundamental as that.

The old timers had it easy with all Europe to draw and a café in front of every object. I admit it's tougher, what with only Brancusi and the nakedness of Mies or Corbu, but it's your world and if you don't like it, you can change it. Also, drinking here is hurried, what with union waiters. How can anybody sit down to a calm unhurried consideration of the proportions of the fountains of Rome when he is hung with a third mechanical nipple, Mom's going-away-present camera, an expensive light meter, bags of lamps and attachments, a tripod, sixteen rolls of film and the attendant nervous irritation of waiting for the sun to come out and make like forty-five degree shadows. Besides, the damn equipment is always in the way of your drinking and drawing arm and it is much too expensive to put down.

All you need for my short course in training is a fountain pen, a pocket pad, a cheap rule and a flexible kidney. You can get around easy and with a funny hat and a nine-day beard and no changes of shirts, people will watch you in awe and admiration and later your clients will respect you. The character boys can sit down with a client and have him woggle-eyed just by making a sketch right there instead of asking old Mr. Trifocals to look through a view-finder at photographs of your great achievements.

When I was a boy, the kind of training you students are now subjected to was for the engineers, building contractors, trade school boys, and the rest of the chewed fingernail set. We had to study the finer things. Architecture was the mother of the Arts and sculpture, painting and music were her handmaidens, and to understand those four old gals took a stomach which never rusted under prohibition alcohol, or rebelled in the early morning against half-cooked flapjacks and trichinosis sausages. With this fine early training, you were hardened for the ground tour of Europe, the glories of Greece, the grandeurs of Rome, and the forbidden fruits of France. That was how the old generation lived it up, and in my opinion, they produced a lot of buildings which have more individuality than the poverty of personality of the artificially ventilated glassy bone-bags which pass for architecture today.

THIS PINING for the good old days of training for architects reminds me of the story about Michaelangelo. When he had finished the design and construction of the Sistine Chapel, Pope Julius the Second called him in any they sat in the Chapel admiring the beautiful proportion of the room and the unpainted vaulted ceiling. Then Pope Julius the Second said, "Michaelangelo, you are the greatest architect, painter and sculptor of the Renaissance. You have now completed to the glory of God and

the joy of man this beautiful Sistine Chapel and I think that now you should undertake the decoration of this majestic room. I feel that you should paint in the ceiling vaults a history of man as recorded in the Bible, from creation through Adam and Eve, the Garden of Eden, the stories of the prophets and the sybils, and perhaps on the large wall you could do a great Resurrection or Last Day of Judgment or an equally impressive fresco." "Michaelangelo" said Pope Julius the Second, "give these matters thought. You may never live to see the completion of the work of your hand, but I want you to think seriously of this undertaking and give it your careful consideration and let me know what you wish." Michaelangelo thought for a brief moment and said, "Okeh, boss, whata color you want? . . ."

What has me gagging over Gropius and his crocodile tears for the forgotten individual in architecture is that he is the Baumeister who started this "teamwork" line instead of the good old architect waving his magic fingers and running the whole show. Now the field is so reduced to incorporating mechanical devices and copying from catalog numbers that it is hard to find shelf space for the yearly increase in size and weight of Sweets Catalogue, Lally handbooks and Cy Cilling's modular systems.

Over this country, all year around, some architects are getting plaques, consolation prizes, scrolls, cigarette lighters, and given doctor's degrees and this and that for some achievement in Architecture. So I suppose everybody should be proud and happy and cocky about the achievements of the Bauhaus bombshells. I don't remember anybody getting even a bronx cheer for an inspiration from the Parthenon and Mont Saint Michel.

But actually, haven't we sold the soul of the Architect for an efficient, well-ventilated, dull, one-world Architecture? Today everyone is somebody and no one is anybody. As you drive or fly over this country, from the mosquito sand dunes of New Jersey to the shores of Gitchee Goomie and the shining big sea water and across to the Pacific, the lovely country is now peppered with the same Architect-designed prefabricated houses. Using that stock SOM factory scheme you can't tell a hospital from a hoosegow, a museum from a mausoleum, a school from a sanitorium; slum clearances and housing developments are monotonously alike and the dullness is equalled by the juke box and the automobile.

The scared architect looks as characterless as every other mail order breakfast-eating Brooks Brothers type New Yorker and some doctor has just said that the reason for the increase in alcoholism in this country is because people can't stand people any more.

WHAT THIS COUNTRY now needs is a return to the derby hat, the side whiskers, the pot belly, the wine-veined nose, and the big family. As I look over you, almost all of you look exactly alike. The old generation of architects looked like individuals, judging from the old photographs and paintings. This crowd looks like bank vice presidents, underfed college professors or funeral directors. Only a few architects today look like personalities—Frank Lloyd Wright with his electric blue mane and his porkpie hat; Ralph Walker with his unruly white locks spattered over a lobster pink face, Lundy and his hair suits, the Proper Bostonian Leland with a Chinese white Guardsman moustache and maybe Russell of Los Angeles, with a jolly Scotland Yard—or is it a London bobby look. With few exceptions, the rest of us look scared and like nothing in particular and doing very well.

To understand and appreciate the modern architect, I guess that he is almost exactly, but not quite, let us say, trying hard to differentiate himself from, but still wishing he could be, a sort of refined engineer, with the slide rule, but without the busted fingernails, if you know what I mean. Once in a while he affects a little beard or maybe pitches his voice or wears a big ring on his little finger. He riffles his fine nostrils at the Beaux Arts even though he knows that most of the best modern buildings have been designed by those who have this training as a background.

I guess, to appreciate Modern Architecture, you really should be very, very serious and supersensitive and high strung and able to understand the Finer things. Mostly it is the proportion of simple enclosed space, the love of "less is more," the refinement down to "skin and bones."

I guess you should love the Greek Chorus, rather than the Can Can. Mondrian and Mortherwell, not Picasso, Lautrec or Rubens. Schoenberg, not Gershwin. Henry Moore, not Milles.

You must prefer squatting on a silken pillow on a glazed teak floor, eating bird's nests and noodles with chopsticks and drinking saki from a delicate porcelain bowl. The old joys of settling in a big leather chair with a napkin tied around your fat neck and punishing a filet mignon washed down with fine Scotch and soda—no, these Baroque pleasures are not for you.

And you would take to a desert isle—your wife. But give me Zsa Zsa Gabor.

ALFRED BENDINER, FAIA

Do You Know Your Documents? | *For Instance:* FIRE INSURANCE

WILLIAM STANLEY PARKER, FAIA, *Consultant on Contract Procedure*

WE ARE ALL more or less familiar with the fire insurance policies covering our homes, although I question whether any one of us has ever read all the fine print involved. Perhaps we are like the lawyer who was handed the policy covering his new office. He asked the real estate man where he should sign it. On being asked if he wasn't going to read it he replied "No. If I read it I wouldn't sign it." That suggests the way the fine print often affects me.

When we are dealing with the question of insuring our client's house or other structure during the period of its construction we have a different responsibility. We can be careless of our own interests but not of the interests of our clients. But must we be insurance experts too? I think the answer is that—we are just as responsible for the protection of his structure as we are for its structural design, or its air conditioning equipment. In all such details the Architect must be an expert, or know that he isn't and hire somebody who is. Recent investigation has indicated that in regard to this problem of insurance many of us have not been as careful about it as we should have been. We used the Sixth Edition of the General Conditions, but failed to see that the explicit instructions of Article 29, Insurance, were actually followed when the Fire Insurance Policy was issued.

Very likely we just turned the matter over to the Owner's insurance agent and assumed he would issue the policy as required by Article 29. Did the insurance agent ask to see the contract? Indications are that many inusrance agents issue such policies without ever looking at or asking about the Owner's Construction Contract to find out what sort of insurance he has agreed to take out. Our investigation led to the conclusion that the majority of such policies, while taken out on the "Builder's Risk—Completed Value Form," were not in accordance with the specific instructions in the second paragraph of Article 29 in the Sixth Edition.

The first sentence requires that "The Contractor and all subcontractors shall be named or designated in such capacity as insured jointly with the Owner in all policies. . . ." The third sentence states that "If the Contractor is damaged by failure of the Owner to maintain such insurance . . . he may recover as stipulated in the contract for recovery of damages." If the policy as issued merely named the Owner as being insured, or perhaps also named the General Contractor, the provisions of Article 29 are not being carried out, and while the subcontractors are being given the protection intended, the important fact for the Architect to think about is that his Client is being subjected to a possible damage suit in case of a fire.

Most Architects I have discovered, on being questioned, admit they don't know what a "subrogation suit" is. That has been the nigger in the insurance woodpile. After the insurance company has paid a loss, it acquires by subrogation any rights the insured may have to claim damages from the person responsible by carelessness or otherwise for starting the fire, *other than those named or designated in the policy as insured together with the Owner.* If, therefore, the subcontractors are not so named or designated they are all subject to the possibility of being sued by the insurance company for the amount of the total loss if by chance one of their employees can be shown to have caused the fire.

The work of the subcontractor if damaged by the fire is covered by the policy, but it will be of slight interest to him to get $2,000 for the damage to his work and be sued for the whole $50,000 fire loss under a subrogation suit. The Institute, after several years of study with representatives of the insurance business, developed the provisions of the second paragraph of Art. 29 as issued in the Sixth Edition, in 1951. In 1957 it found that these provisions were being generally disregarded.

With the agreement of insurance interests a new second paragraph has just been included in the recently issued Seventh Edition. It omits the previous first sentence, which needed to be followed every time a policy was issued, and adds a new final sentence in which "The Owner, Contractor, and all Subcontractors waive all rights, each against the others, for damages caused by fire or other perils covered by insurance provided for under the terms of this contract, except such rights as they may have to the proceeds of insurance held by the Owner as Trustee."

With this waiver in the contract there can exist no rights under which the insurance company can develop a subrogation suit. It will be unimportant just who is named as the insured in the policy. It will be adequate if only the Owner is named. The Contractor will be covered whether or not he is also named in the policy, and he and his subcontractors will not be subject to possible subrogation suits.

By this provision the Architect's responsibility to see that the policy is properly issued is greatly relieved. But there are other insurance problems he should not forget, which will be discussed later.



Walbridge & Bellg

JOHN NOBLE RICHARDS, FAIA

President of The American Institute of Architects

An Architect Looks at His Profession

This is the first of a series of articles by or about the officers of the Institute designed to better acquaint the members with the men they have elected to high office.

JOHN NOBLE RICHARDS was born in Warren, Ohio, in 1904. He took his B.A. at the University of Pennsylvania, where he won the Cret Medal and the Stewardson Travelling Scholarship, which took him to Europe in 1929-30. Previous to that he had worked as designer in several Philadelphia offices, and after his return from abroad he became a designer for Mills, Rhines, Bellman and Nordhoff in Toledo, Ohio. He became a partner in 1940, and in 1944 the firm name was changed to Bellman, Gillett and Richards.

He became a member of the AIA in 1935 and was President of the Toledo Chapter 1938-1940. He served as Regional Director from the Great Lakes District from 1950 to 1953, was elected Second Vice President of the Institute in 1955 and First Vice President in 1956 and 1957. At the 1958 Cleveland Convention he was elected President.

President Richards has long been active in civic affairs in Toledo. He is a Board member of the YMCA; a Charter Member, Past President and District Governor of the Downtown Toledo Exchange Club; and a Past President of the Toledo Club. He is a member of Alpha Rho Chi, Tau Sigma Delta and Scarab. His hobbies are sketching and water colors, stamp collecting and building HO Gauge trains.

DURING THE PAST few months I have visited almost every section of the country, attending nine regional conferences, several AIA chapter meetings, and other building industry gatherings.

Everywhere I went I have been impressed with the seriousness and conscientiousness with which architects work for the advancement of the institute and the prestige of our profession. I have generally found intensive personal contacts, good human relations, and frank discussions of our mutual problems.

I am particularly impressed by the devotion with which so many of our members participate in committee work. Furthermore, a great many architects, I am happy to say, are giving their time and creative efforts to urban redevelopment.

This devotion is commensurate with our staggering responsibility.

We are designing buildings not only for our clients, but for generations to come. While our responsibility towards the clients will always come first, we must also bear in mind that his building must form a part of a new environment of enduring beauty for the entire community.

We must never forget that architecture is one of the oldest and most lasting forms of art. Centuries after their completion the great buildings of the world are still the principal tourist attractions today. London has its Hampton Court; France its great cathedrals and the palaces of Versailles and Fontainebleau; Rome its Colosseum, St. Peter's Cathedral, and the Sistine Chapel; India its Taj Mahal; and Greece its Parthenon.

The quality of any art is manifest in its survival through the ages. This is the challenge architects have had to meet since the first building outlived its designer.

The Taj Mahal was not, of course, built to attract the tourist trade of 1959. This magnificent structure was designed for a client by an architect who drew upon all of the imagination and skill at

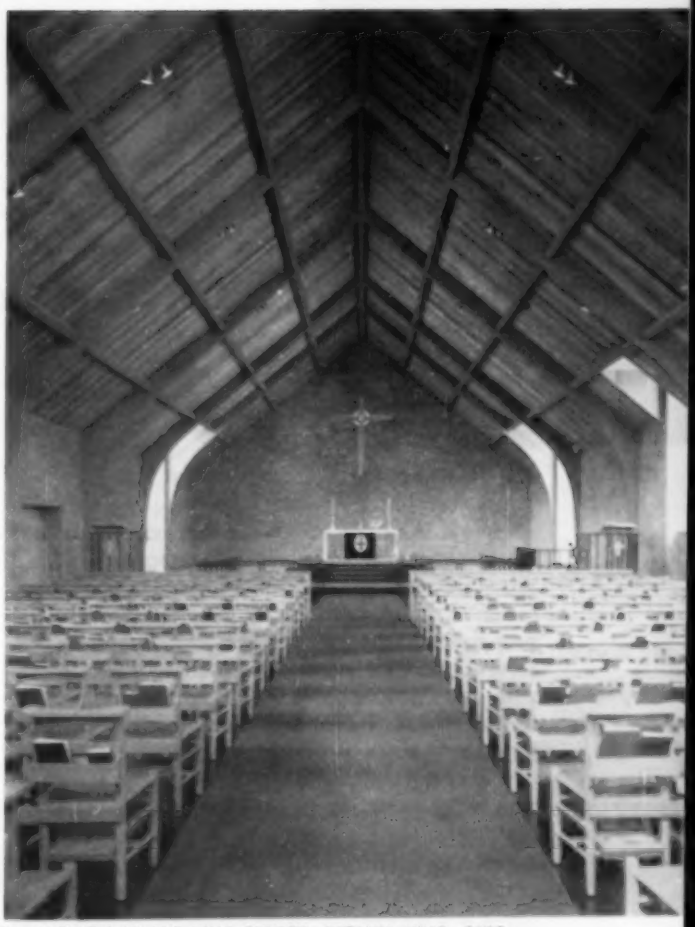
his command to make it as perfect as possible—a building of both lasting beauty and utility.

Let us from time to time remind ourselves of this tradition. We no longer design palaces and tombs for kings. But the office buildings, private homes, schools, churches, and industrial plants we build today will be or should be the tourist attractions of the year 2059.

To create a new environment of which this and future generations can be proud and which is mindful of the great traditions of our calling is not just an individual job. It requires the kind of teamwork which the architects of Nashville, Dallas, Rochester, Detroit, Toledo and Kansas City are demonstrating. In these and other American cities AIA chapters have formed teams of architects who help other civic leaders improve their communities. Some of them are donating their services. In many cities, too, architects are becoming more active as members of planning and art commissions in their communities.

This is a most encouraging development. It is good architectural practice and good citizenship—and the two are really one and the same.

By serving our communities our communities in turn will show their gratitude. Through our collective efforts people are already beginning to gain a better understanding of good architecture. We are thus creating a favorable atmosphere, a public climate, which is not only good public relations and good business for the individual architect but presents us with the opportunity and challenge for building a better and more beautiful America.



ST. MICHAELS IN THE HILLS CHURCH, OTTAWA HILLS, OHIO.



48 UNIT APARTMENT BUILDING, ROSSFORD, OHIO.



PRIVATE RESIDENCE, PERRYSBURG, OHIO.

BRANCH BANK, TOLEDO, OHIO.

Walbridge & Bellg





From the Executive Director's Desk:

AFTER PERIODS of gestation of uncertain and varying duration an aspiring author in Georgia gives birth to revised editions of a pamphlet. This publication seems to enjoy an extent of distribution out of all proportion to its content. Occasionally they find their way into the hands of good conscientious architects and are sent by some of the recipients to me for criticism, comment or protest.

My reaction is one of amusement rather than concern for I am beginning to suspect that the author, who is the president (apparently self-appointed) of something that calls itself the American Registered Architects, Incorporated, is at heart a frustrated humorist. It may be only because his subject is of limited appeal that those magazines which go in for burlesque or parody have not paid him handsomely for his output. The author-president-editor or, for the sake of brevity, the pamphleteer may become the poor man's Bendiner. That his publication has persuaded a number of the less perceptive members of our profession to contribute their hard earned dollars to the president-author-editor confirms the cynical but profitable theory of P. T. Barnum. Doubtless some of our architects are now so busy that they do not have time to analyze the unceasing flow of literature across their desks.

In the latest edition of the pamphlet, the format of which is scarcely architectonic, there is seldom a line which does not lend itself to ridicule. A sophomore on the loose. A publication whose principal characteristic is humor, conscious or unconscious, merits a review.

The American Registered Architects, Incorporated, according to the publication, has a staff of three, including its creator as president and editor (though he might consider dissociating himself publicly from the latter assignment). It has an array of vice presidents which grows with each edition. The scale of dues and the general tone of the text lead one to wonder what the tariff for vice presidents may be.

There is a General Council consisting of apparently three politicians and a certified public accountant, altogether a unique coterie for the advisory board of a professional society. Then there comes a long list of State Regional Directors. Presumably when this number reaches forty-nine (to include Alaska) the bell will be rung. There is an Emeritus Committee, though it is not stated whether the committee members are emeritus or whether they assemble to confer that status on others. In fact, that status goes undefined. There is an International Affairs Committee made up of three people: One at large, another in charge of Switzerland and Bandung, Indonesia—an uncanny combination; and a lady who represents France. I do not know on what basis the foreign countries to be represented were selected, but the ARA seems to have overlooked a great many countries whose architectural achievements are not unknown.

There is an Advisory Committee of indeterminate length, though who advises whom and when and why is not divulged. Only slightly smaller is the Committee on Architectural Improvements, but here again we are given no inkling as to its duties, its responsibilities or its accomplishments. The Committee on Architectural Improvements seems to be somewhat lacking in the names of those architects who are noted for their accomplishments in the field of architectural improvement.

As one plows through the turgid text, puzzled by the syntax and disappointed by the rhetoric, one cannot repress a smile of compassion. We are told that the ARA, Inc., is a mature organization of

registered architects. Now the word "mature" can connote aged in the wood or the achievement of savage fertility, neither of which meaning was probably intended. So that we guess the ARA is just a collection of old people. Further perusal of the brochure gives no clue to the reasons or justification for its claim of maturity.

On page five we come upon some startling statistics. It is stated that there are 35,000 registered architects in the United States. This would appear to those of us who have the facts at hand, a figure arrived at by adding all of the state registration lists together without culling them for duplications. The figure is wrong by about 10,000. The ARA may have obtained its information from the Bureau of the Census which builds up its figures by house-to-house inquiry. When a proud parent whose son is an office boy in an architect's office is asked his occupation, the answer is, "Architect," thus adding to the census figure for our profession. However, my assumption is that this grandiloquent figure was arrived at simply by a non-analytic adding of all the lists of registered licensees.

Actually, there are slightly less than 25,000 individuals licensed to call themselves architects in the United States or its possessions. So the statement in the brochure that 25,000 registered architects do not belong to any organization comes as sort of startling news to The American Institute of Architects, whose membership rolls now include somewhat in excess of 13,000 registered architects. Obviously we have a confusion of facts or of definition or maybe the AIA simply does not exist.

The paragraph following the mathematical acrobatics tell us, "Research produces the inescapable conclusions that there is a need for a society of architects whose aims are universally acceptable and whose procedures do not offend in any way." Granted that research is a word that is controversial in itself and probably one of the most misused words in the English language, it is questionable if the research which produced the "inescapable conclusions" was the type which would be recognized as expert. The author might have carried his research a little further for if he had he would have discovered that the society of architects for which his research produced inescapable conclusion is The American Institute of Architects (in existence for over one hundred years).

On the next page we learn under the heading, "Golden Doors" (Are we treading on sacred ground?) that, "The doors we hold in open invitation are the doors to the greatness that is already yours. We invite you to join. If you seek imperfections in your associates, you are not quite ready for membership. American Registered Architects will continue to work for your perfection and protect your interests." Here we first get the cult complex. We can sense the aspiration to flowing white robes, the secret signs, the mystic symbols, the outwardly benign bearded one with inward eye on the cold hard cash of the potential neophyte.

Throughout the text like a leitmotif is the emphasis on non-profit. So repetitious is the disclaimer that one is reminded of the line in Hamlet, "The lady dost protest too much, methinks."

In a curious paragraph headed, "Atomic Urgency" we have a suggestion (at least that is the only message I can evolve from the tortuous prose) that The American Institute of Architects is prepared atomically to eradicate ARA by fusing instantly a whole nation into vapor as a result of "unrestrained hate." Now surely The American Institute of Architects has not the funds, though we are worth some three million of dollars, to set off even one intercontinental ballistic missile with a warhead. Unrestrained hate rampant in the AIA has yet to be encountered, nor has jingoism for that matter. So it is doubtful if the AIA would resort to such extremes even if it sought to rid the profession of a pamphleteer.

In the paragraphs devoted to "Special Privilege Groups," there is this rather cryptic statement, "It becomes quite obvious that such a group thrives on less than full membership, and cannot purvey its wares on full membership." Even reading this three times and trying to rearrange the words in order that they may achieve a rhetorical soundness leaves me perplexed as to what, if anything, the writer had on his mind.

An untoward number of paragraphs are devoted to a less than scholarly discussion on the yellow pages in the average telephone book. References are made to beer salesmen. We learn that they are the most ethical of all groups in the telephone book. (Of course, just how a group physically gets into a telephone book is a cosmic mystery.)

Under such captivating, if not erudite, subtitles as "ARA and the Fly Swatter," "Bigger Architects," "You Are in Debt," "Honor Returns," "Solid Gold Cadillacs" lie fascinating bits of information such as that ARA is allied to the greatest force on earth—the Golden Rule—a quaint assumption of prerogative.

We are informed that there are untold numbers of public buildings being constructed without architects and in defiance of existing laws. Now here we find something for the attention of authorities, if indeed it is true. Allowance must be made for the lack of resources to conduct analytical research.

We are told that architects are poorly posted. This statement may refer to the rare breakdowns of our Pitney Bowes machine.

The final and most informative section of the brochure is that dedicated to the descriptions, photographic and otherwise, of the personalities who we are told control the destinies of ARA, Inc. Its president-author-editor reviews his educational background, which in comparison to that enjoyed by most architects is not impressive.

He also states that he is a "Correspondent, Royal Institute of British Architects." Upon inquiry of that organization, I have learned that it was unaware of being so honored by the pamphleteer, though they readily admitted that many, many people do write to Portland Place. Now such representation is intriguing. Following the example set by the pamphleteer, I could list myself as a correspondent of innumerable organizations, including not only the RIBA, but also of the Congress of the United States, the White House, the *Washington Post,* Sears Roebuck & Company, the Ajax Novelty Company, and Santa Claus.

We learn that one of the vice presidents of this professional society is or was engaged in sales engineering and promotion. Another vice president was an "Early Spark Radio Ham" and is still actively on the air. Another was formerly vice president of an engineering company; another has traveled in the United States and all the provinces of Canada and Mexico, interesting qualifications for high office. The balance of the vice presidents have nothing particularly of interest in their careers except one who apparently achieved the honor because he sent in ten applications for ARA membership.

All in all it seems that those members of the AIA who view the antics of ARA with alarm could relax and enjoy the fun.

EDMUND R. PURVES

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EDMUND R. PURVES

Ten Years as Executive Director

NOBODY WOULD HAVE KNOWN that January first was Ned Purves' tenth anniversary as Executive Director of the Institute if Jimmie Gambaro, FAIA, of the Brooklyn Chapter, hadn't sent him a telegram of congratulation—in fact, it's doubtful if Ned himself would have remembered it. Yet ten years in such a job is quite a stretch of service, and should not pass unnoticed.

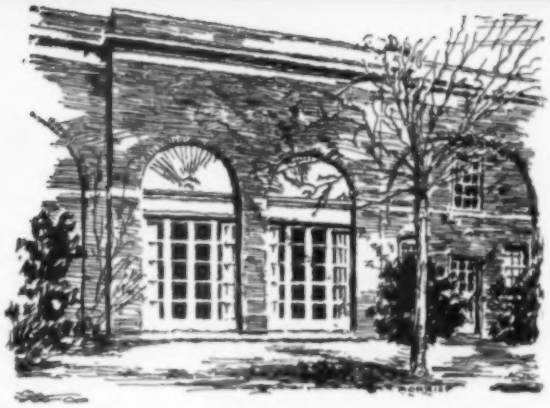
Edmund Randolph Purves was born in Philadelphia and attended the Germantown Friends' School. After that came the School of Architecture at the University of Pennsylvania until his career was interrupted by World War I—from which he emerged with the Croix de Guerre with silver star. After the war he graduated from Penn with the class of 1920; in that same year he was a finalist in the Paris Prize. The next year found him in the Atelier Gromort in Paris and after that he settled down to a draftsman's career in Philadelphia. By 1927 he felt ready for practice, which he continued, both singly and in partnerships, until World War II.

Ned joined the Institute in 1930 and became active in the Philadelphia Chapter, serving as First Vice President and Secretary and on several committees. He was a member of the Board of Directors of the Institute from 1938 to 1941, and Chairman of the Judiciary Committee in 1941. Among his many activities in the field of public service he served on the Pennsylvania Board of Examiners for Architects from 1938 to 1950. War interrupted his career again, as it did nearly everybody else's, and we find Major Purves serving for two years as Chief of Counter Intelligence for the 7th Air Force in the Pacific Theater. He came out of the war bemedalled and through several hospitals, and was soon tapped by the Board of Directors of the Institute for the post of Director of Public and Professional Relations, which he occupied from 1945 until he was appointed Executive Director to succeed Edward C. Kemper on January first, 1949. He was made a Fellow of the Institute in 1944 and received the Kemper Award in 1958.

The Presidents and officers of the Institute during the past ten years will agree that much of the credit goes to Ned Purves for the many advances the Institute has made during those years—its emergence as the real voice of the profession and its position of leadership in the construction industry; its close ties with the various government agencies and its very real influence on Capitol Hill. He has guided the Institute staff and counselled the Board with wit, wisdom and a farseeing vision derived from his long and rich experience. During these busy years Ned has also found time to serve on advisory boards and committees for the AEC, FHA and HHFA, as well as being active in civic affairs in Washington.

These have been ten good years for the AIA, and on his tenth anniversary we salute our Executive Director!

Library Notes



As a creator of that which he hopes will be pleasing to the esthetic sense, the architect often makes use of the other visual arts to supplement his own work. Naturally he will wish to keep informed of new trends and developments in the arts as well as architecture. The Library, while making no effort to be comprehensive, does wish to maintain a representative selection of books on painting, sculpture, and other media the architect may employ. The present list includes those books dealing mainly or in part with modern and contemporary art. All volumes may be borrowed on the Library Loan Service by corporate members at a mailing charge of fifty cents for the first volume and twenty-five cents for each additional volume. G.E.P.

Art in general:

Malraux, Andre
The Voices of Silence. Garden City, N. Y., Doubleday, 1953. 661 pp.

Ozenfant, Amedee
Foundations of Modern Art. New York, Dover, 1952. 348 pp.

Rodman, Selden
Conversations with Artists. New York, Devin-Adair Co., 1957. 234 pp.

Moholy-Nagy, Laszlo
The New Vision, 1928. 4th rev. ed., and Abstract of an Artist. New York, Wittenborn, Schultz, 1947. 92 pp.

Upjohn, Everard M. & others
History of world art. 2d ed. New York, Oxford University Press, 1958. 876 pp.

Robb, David M. and J. J. Garrison
Art in the Western World. 3d ed., New York, Harper, 1953. 1050 pp.

Larkin, Oliver W.
Art and Life in America. New York, Rinehart, 1949. 547 pp.

McCurdy, Charles, ed.
Modern Art: a Pictorial Anthology. New York, Macmillan, 1958. 489 pp.
Contents: Painting in Europe, 1850-1957, S. Hunter; Painting in the United States, 1885-1957, S. Preston; Painting in Latin-America, 1925-1956, B. S. Myers; Sculpture, an international survey, 1852-1956, A. L. Chanin; Architecture, an international survey, 1851-1956, A. Drexler; Design, an international survey, 1851-1956, H. Schaefer; The language of art, a bibliography, B. Karpel.

Damaz, Paul
Art in European Architecture. New York, Reinhold, 1956. 228 pp.

Painting

Miller Company, Meriden, Conn.
Painting Toward Architecture. Text by Henry-Russell Hitchcock. New York, Duell, Sloan and Pearce, 1948. 118 pp.

Richardson, E. P.
Painting in America: The Story of 450 years. New York, Thomas Y. Crowell, 1956. 447 pp.

Baur, John I. H.
New Art in America: Fifty Painters of the 20th Century. Greenwich, Conn., New York Graphic Society, 1957. 280 pp.

National Society of Mural Painters
A Portfolio of the Work of Members. New York, 1950? 41 pl.

Freeman, Richard B.
Ralston Crawford. University, Ala., University of Alabama Press, 1953. 47 pp.

Sculpture

Giedion-Welcker, Carola
Contemporary Sculpture: An Evolution in Volume and Space. New York, G. Wittenborn, 1955. 327 pp.

American Sculptors Series
1. Wheeler Williams, 1947. 2. Paul Manship, 1947. 3. Anna Hyatt Huntington, 1947. 4. Daniel Chester French, 1947. 5. Malvina Hoffman, 1948. 6. Sidney Waugh, 1948. 7. Herbert Haseltine, 1948. 8. Augustus Saint-Gaudens, 1948. 9. José de Creeft, 1950. 10. Cecil Howard, 1950. 11. C. Paul Jennewein, 1950. 12. Adolph A. Weinman, 1950. 13. James Earle Fraser, 1955. 14. Lee Lawrie, 1955. 15. Donald De Lue, 1955. 16. Julian Hoke Harris, 1955.

Mestrovic, Ivan
The Sculpture of Ivan Mestrovic. Syracuse, N. Y., Syracuse University Press, 1948. 29 pp. 152 pl.

BOOK REVIEWS

Here, of all Places.

By Osbert Lancaster. (192 pp. 7" x 9½". Illust. Boston: 1958: Houghton Mifflin Co. $4.00) *A history of architecture with one of Osbert Lancaster's droll drawings on every right-hand page and his clever text on every left-hand page should be a delight. It is, and it is here reviewed by Edmund R. Purves,* FAIA, *Executive Director of the Institute.*

By Edmund R. Purves, FAIA

The dust-jacket of this most enticing volume says that it is "A brief and much-too-frivolous view of human habitation inside and out in word and picture—from Stonehenge to Manhattan." I cannot altogether agree with this characterization. It is brief, for which Mr. Lancaster be praised. It is far from frivolous, at least as that word is understood in this country. Frivolity suggests to me the kind of musical comedy that I was occasionally allowed to see in my youth (incidentally, and art form which could be resurrected to advantage in these days of dreary musicals and operas with messages).

Lancaster has a message, however, and a good one. The message is educational rather than profound. I suppose that his book would not be called scholarly, which is fortunate, for that very word does not incite reader attraction. History of architecture is something that should be enjoyed. Architectural history, one of the most potentially fascinating subjects in a curriculum, is all too often a dismal process. Lancaster has made an excellent contribution toward the end of bringing architectural history to the position which it should enjoy, one of allure and intense interest.

For architectural history is a recording of life, not of politics or of economics. Architectural history is that history which tells the most fascinating story through its own monuments. It need not be scholarly, but it should engage enjoyable attention and that is what Lancaster has succeeded in doing so admirably.

I suppose Lancaster himself may have found his own drawings a little frivolous. I do not, for they serve to supplement the text. Possibly it is the other way round, for through them he skillfully and engagingly tells a fuller story—so much more interesting than the dusty slides that I had to look at as a youth, while the professor droned on and on and on.

There is an occasional light touch in the text but only to emphasize a point. But rather than light, I would say that the text is clever and a cleverness to be admired, not a cleverness to be used as a characterization of mild contempt. He has followed the categorizing of his own invention, but this again only serves to emphasize the fine points of the product of a penetrating, scholarly and witty mind. We need more Lancasters.

Architecture of the California missions.

By Kurt Baer and Hugh Rudinger. (296 pp. 8¼" x 11". 84 illust. Berkeley and Los Angeles: 1958: University of California Press. $10.00) *The first book on the missions of Spanish California in recent years is reviewed here by Rexford Newcomb, FAIA, who was the author of the first three books on that subject—books which are still the standard works in the field.*

By Rexford Newcomb, FAIA

It was in the autumn of 1911 that this reviewer became enamored of the Franciscan missions erected in California between 1769 and 1823. At that time there seemed to be little interest in these monuments, even among architects, and no book had as yet recorded their architectural charms. If memory serves aright, the Mission Inn at Riverside, designed by the late Arthur Benton, was the principal one of a small group of structures which followed Spanish precedent. In order to record the salient features of these monuments, then falling into decay, an architectural survey was begun by the reviewer which resulted in the publication of three volumes: "Franciscan Mission Architecture of Alta California" (1916), "The Old Mission Churches and Historic Houses of California" (1925), and "Spanish-Colonial Architecture in the United States" (1937). Aside from these and Frances Rand Smith's "Architectural History of Mission San Carlos Borromeo, California" (1921), scattered magazine articles, and paragraphs in general histories, little has been written about the architecture of these sun-loving edifices.

Now comes the current volume in which Kurt Baer re-examines the architectural styles of the missions and Hugh Rudinger sets forth by means of charming photographs the pictorial qualities of these admirable structures. Each has done a masterful job, bringing us up to date in an accurate account of the vicissitudes that in the meantime have befallen these venerable precincts. The author distinguishes between restoration, reconstruction, and repair and rightly so, for few, even architects, differentiate between these latter-day treatments of these structures. Baer bases his analysis and evaluation upon the seventeen existing missions (there were originally twenty-one) some of which have been much repaired, reconstructed, or restored. Mission La Purísima Concepción, for instance, has been almost totally reconstructed by the National Park Service as late as 1935-37 and 1941, and Mission Santa Barbara has undergone much restoration, some of it as recently as 1953.

In some respects the book leaves something to be desired. For instance, there are no plans of actual structures but in their place the author presents what he calls a "schematized plan of a mission com-

munity," based upon the arrangements at Santa Barbara, and a "schematized plan of a mission church of the primitive type," based on San Gabriel. Despite abundant photography, complete knowledge of any one establishment is difficult to achieve. This reviewer would have welcomed a wider use of the delightful text figures, including plans, sections and details. An adequate index would likewise add to the usefulness of the book.

The photographs give one a splendid notion of the missions in their present condition and illustrate the esthetic qualities of these ancient structures which some critics consider to have been over-restored. These illustrations, produced by means of the bromoil-transfer process, impart a soft, not to say "fuzzy" atmosphere, to the subjects delineated.

The author, a competent scholar in the field of Hispanic art, has produced a fascinating treatise on the missions and their precedents in Mexico and Spain. He is professor of art in the University of California in Santa Barbara. The photographer, sometime instructor in the art school of the Brooklyn Museum of Art, is likewise well-known in his field. The University of California Press is to be complimented upon the production of a lovely volume with beautiful letterpress, bound in appropriate Franciscan brown cloth, gold stamped. The book was designed by Rita Carroll.

The Golden Number and the Scientific Aesthetics of Architecture. By M. Borissavlievitch. 196 pp. 5¼″ x 7¼″. New York: 1958: Philosophical Library, Inc. $4.75

M. Borissavlievitch, a lecturer at the Ecole des Beaux Arts in Paris, sets forth in this book his belief in an architectural esthetic based upon physiology and upon a perspective which ceases to be geometrical to become optical. He believes neither that mathematics is the foundation of the intelligible and visible world and that all proportions are the consequences of arithmetic, geometric or harmonic means as set forth by Pythagoras and Plato, nor that beauty is purely and simply an experimental fact, the creation of sensual man.

The book explains the application of the Golden Number to architecture, and illustrates many compositions allegedly based upon it. It offers "laws" for creating architectural harmony and composition based upon the Law of the Same, the Law of the Similar and the Law of the Tympanum.

Years ago, fresh from futile effort to study Dynamic Symmetry in the writings of Claude Bragdon, this reviewer bought a book by M. Borissavlievitch in Paris (in French, of course), and lost many hours trying to translate and fathom his meanings. This book makes them a little clearer—but, to tell the truth, he feels that full meaning still eludes him and that he is now just about where he was when he came in!

J. W.

Elementary Theory of Structures. By Chu-Kia Wang, Ph.D. and Clarence Lewis Eckel, C. E. 400 pp. 6″ x 9″. New York: 1957: McGraw-Hill Book Co., Inc. $7.50

A textbook presenting the essential principles of structural analysis, covering algebraic and graphic methods of solving problems of shear, bending movement, analysis of roof trusses, moving loads, deflection, rigid beams, etc. The treatment is clear and easy to understand, and the illustrative method is freely used.

The New School. By Alfred Roth. 2nd edition, rev. & enl. 280 pp. illus. 7″ x 9¾″. New York: 1958: Frederick A. Praeger. $11.50

After a brief treatment of school and community relationships, including site, a longer chapter (25 pp.) on elements of the school, and a rather superficial few pages on lighting, heating, etc., this slick-paper compendium analyzes some thirty contemporary schools in ten countries. Typical report includes comment in English, German and French under headings of: *type, site, spatial planning, classroom unit, construction* and *materials*. Each school is illustrated by photo-views and plans with tri-lingual captions. There are also a brief three-way glossary and selected references.

While it is always good to see mounting evidence of the gospel of clean architecture, this particular message is not as new as it was in the 1950 first edition, although only four examples are repeated.

There are the usual overconfident errors in English, including two new partners in a well-known firm name: "Caudill, Bryan, Texas, Rowlett & Scott"! The ebullient Bill at least has refrained from taking unfair advantage of this partnership with our second-largest state. There are oversimplifications ("Air conditioning, viz, a combination of ventilation and heating . . ."). There are unquestioning quotes of generalizations ("Direct lighting by *controlled* fluorescent tubes, *adequately* mounted, gives excellent results.")—two real mickeys in that statement, but the article does include a more specific plea for control of brightness contrasts—lighting quality.

While there are many useful cuts, many of them are less than 2″ x 3″. It would have been a better job of reference book making if similar plans had been kept at same scale—site plans, for instance, are shown at ten different metric scales from 1:1000 to 1:6000—building plans and classroom plans in almost as over-generous variety.

This detail criticism is given because this is a disturbing example of book production (and not unique). It has an author of some experience and standing, the excellent mechanical production we have come to expect from Switzerland, but why was it not given that extra care its price would justify? Mr. Roth and the publisher should know that the AIA Committee on School Buildings would have been glad to review proofs and discuss this publication to make it more accurate and attractive to this market.

Our guess is that it would be more profitable if it were a hundred pages, English only, unbound with each example loose-leaf, and priced at four dollars. E. P.

The Editor's Asides

There is much soul-searching and belaboring of ourselves these days by speakers at seminars and writers in our publications because we haven't developed a system or "style" of architecture of our own. The question is often asked by architects and writers on architecture, "What did the past great ages have that we haven't got?"

For one thing, the "past great ages" had, considering the life-span of a single individual, a reasonably settled economy and a fairly static technological state, so that in spite of wars, famine and conquest the individual's life went on pretty much the same—if he survived. Today, within the life-span of a single individual we have seen an almost complete economic and social change, to say nothing of the complete revolution in building technology. Why the hurry to "express" it? Art is long and time is fleeting, and what we can't "express" our great-grandchildren will.

The Greek culture, looked at in historical perspective, developed with amazing rapidity. Yet it took from three to four hundred years to develop and perfect the temple and its Doric order. The Heraion at Olympia is believed to be the oldest Greek temple known; it was built about 640 B.C. The Parthenon was completed in 432 B.C., two hundred years later. To the untrained eye the two buildings look practically alike, but the architect can see and delight in a thousand refinements in the crown of the Acropolis. Art doesn't stand still, but it moves powerful slow.

It is hard to put a date on just when the Romans took over the trabeated system of the Greeks, for it was a gradual process, but let's say about 200 B.C. From then until the completion of the Basilica of Constantine, A.D. 313, was five hundred years. During that time they took the arch from the Etruscans and the vault from the Syrians and developed their own "thin-shell" roof—and what great uses they put it to! True, they made the esthetic mistake of plastering their buildings with what we call fake orders, but at their rate of development that seemed the logical thing to do and they showed the esthetic good sense to gradually work away from it. The later Roman buildings had unadorned brick exteriors and the interiors were treated with a frank veneer of many-colored marbles.

To carry the parallel into the Gothic ages is unnecessary. We all know the story of the apparently rapid development of the structural system (actually a hundred years) and the perfection of a decorative system which not only did not impair the expression of the structure but enhanced it.

The point I want to get across is that none of the designers during each of these high-points in architectural history felt it necessary to discard the forms of the past; they adapted them to their new structural systems and from that beginning they gradually became modified until they were esthetically suitable to the structure, even by our standards.

Until the nineteenth century there was never a deliberate and conscious effort to invent a new "style." It was always a matter of using and refining the style at hand—and from this slow and careful study, by many men and over many years, came, in each case, a true classicism. A new classicism, for today, cannot be achieved by simply resorting to symmetrical compositions, and balanced wings and masses in the Palladian manner. That's just another design trick that becomes next year's cliché. Classicism comes from within; it comes from the studied efforts of perhaps generations of men to refine their style or their system to its essence. Perhaps it won't take generations, perhaps it can happen in our generation. But it can't be forced, and it can only come from thoughtful study of the evolution of the classicism of other ages, and careful distillation of the best techniques of our own age.

True, to many the great diversity of techniques available to the artist today seems confusing and disconcerting. It may confuse some artists, but it should never confuse the artist who knows where he is going. The artist—and I mean the architect—working within an established classic system had the advantage of its discipline imposed upon him. The discipline today must come from within the artist himself. And that makes it all the tougher for all but the truly great artist, who is unconscious of any discipline.

Meanwhile, popular interest in our form of art is higher than ever before in modern times. If the individual architect, and the Institute, plays on that interest and does everything possible to foster and increase it, we will have the best-informed clientele since the late eighteenth century—and an infinitely larger one. People *are* looking at buildings, they are becoming increasingly aware of their environment, both structural and urban, and they will become increasingly critical of it.

So at the risk of being called a Pollyanna, I suggest we stop beating our breasts because we have not yet created a great new architecture "expressive of our age." We have at least created the richest and most fascinating architectural mélange of history, and out of this delicious potpourri, with its ingredients of Mies, Wright, Stone, Neutra, Saarinen, Corbu, Stubbins, Nervi, Torroja —to mention only a few—can and will come a genuine and solid architecture—a true new classicism (which in time will tend to freeze into a mold, as it has before, only to be broken by new developments.)

I also suggest we stop worrying about architecture's not being "appreciated" by the public. It's being *looked at* more than it has for many generations, and with a little more effort on the part of the profession this "looking at" can be educated into a genuine appreciation.

Dr. Pangloss should be the patron saint of the architects today, for in our field, "Everything is for the best in the best of possible worlds!"

J. W.

Information contained in this article has been prepared by the Committee as a service to the architectural and engineering professions. Since statistics shown are average in nature and are based on experience records rather than basic research, and may vary in different geographical locations, examples used have not been officially approved by the Governing Boards of AIA or ASHAE. However, research in some of these areas has been programmed by ASHAE.

Economics of Airconditioning

The Joint Committee of
The American Institute of Architects
and The American Society of Heating *and*
Air Conditioning Engineers

FROM ITS BEGINNING, airconditioning has contributed to the success of many commercial enterprises. At the turn of the century airconditioning solved a major problem for the publishing and textile industries by controlling humidity during production operations. Later, in the twenties, airconditioning made it "20° cooler inside," so that motion picture theatres could remain open during hot summer months.

Likewise, countless industries, hotels, restaurants, offices, stores, hospitals, apartments, and schools have found that airconditioning contributes to profits and to value and usefulness of buildings. During the past few years studies have been conducted to prove that airconditioning is essential in these buildings in order to improve efficiency, productivity, and health.

Today, airconditioning is considered commonplace by most people. But, while we have been learning since the nineteen-thirties to expect it in public buildings and stores, and to want it in our homes, many of us still consider airconditioning less than essential.

commercial buildings

Little attention has been given to economic values of airconditioning because its most obvious impact has been on comfort. Everyone is aware that airconditioning is growing with tremendous strides, and it seems so usual today that most people suppose that the majority of buildings being constructed are airconditioned. A recent survey, however, shows that less than one-third of the non-residential buildings constructed or remodeled in 1956 had any form of cooling.

It was even more surprising to discover that after fifty years of improvements in the science of airconditioning, less than 10% of these buildings were equipped with complete year-round airconditioning.

When we stop to consider that one of the major reasons a building is built is to create an indoor climate wherein a function can be performed most efficiently — and that the public is well enough informed to know that they want airconditioning — it is surprising that so few people install the type of airconditioning which contributes importantly to the purpose of the building.

inadequate systems

A survey was initiated to determine why so few are installing any kind of airconditioning and why two-thirds of those who purchase airconditioning install less than adequate systems. This survey pointed to these reasons:

- **many do not understand what airconditioning is**
- **many do not know the function and economic benefits**

An analysis and a presentation was prepared to help clear up these two points. The difference between complete and incomplete airconditioning is explained by the following definition, published by ASHAE:

definition of airconditioning:

"Airconditioning is the process of treating air so as to control simultaneously its temperature, humidity, cleanliness, and distribution to meet the requirements of the conditioned space."

The four major factors of airconditioning are:

- **temperature**
- **humidity**
- **cleanliness**
- **distribution**

These must be controlled and designed to meet the requirements of the conditioned space.

temperature

The first element is temperature — controlled to meet requirements of the conditioned space.

A complete system controls heating and cooling to meet the needs of each space.

humidity

The next element is humidity — controlled to meet requirements of the conditioned space, which means provision for adequate humidification and dehumidification.

cleanliness of the air

The third element deals with cleanliness of the air — controlled to meet needs of the conditioned space, which means adequate removal of dirt and other airborne particles and odors from the air.

A complete system removes at least 90% of the fine particles which cause most of the staining of walls, ceilings, drapes, and furnishings, and include most of the bacteria and viruses. It will also pressurize space to prevent drafts and dirt infiltration.

A complete system removes odors and does not transmit odors from space to space.

distribution

The final factor is distribution — designed to meet requirements of the conditioned space, which means introduction and distribution of conditioned air to each individual space without drafts and at an acceptable noise level.

A complete system distributes air to each space individually, assures constant air volumes at all times, and distributes air in an even pattern.

effect of environment on human beings

The human body is actually a heat machine, and its reaction is changed by daily input and output of energy, skin temperature, and body temperature.

This machine is in some respects inefficient in producing heat or converting energy for its own fuel and maintenance. It produces more than is needed and has built-in devices for getting rid of the excess.

A man gets progressively fatigued when certain bodily functions, such as heart rate, blood pressure, and oxygen consumption do not return to their lower level after each work period.

Most people are well aware that they tire more quickly when they work in a warm, humid environment than in a cooler one. This is true, physiologists say, because working in high temperatures produces more stress than working in a cooler environment. Therefore, fatigue appears sooner.

If people stay in surroundings with a temperature above 90°, their bodies do not return to their lower physiological levels even when they rest.

From the human standpoint, these workers are likely to be unhappy and a safety hazard because they are overtired. Eventually, their health, as well as their morale, may be affected.

For this reason, more people have changed the question: "What will airconditioning cost?" to: "What will it cost to be without airconditioning?"

A task group of mechanical engineers from the Federal government construction agencies said:

"Almost everyone agrees that airconditioning is worth while, but concrete evidence by which management can justify it does not appear to be available. Aside from the merits of airconditioning, it is rapidly becoming an accepted necessity.

"Additional work output of employees is not enough. Other factors must also be considered. These include: health, reduced absenteeism, good will, and lower personnel turnover.

"Only quality design and equipment should be considered.

"Central airconditioning will generally cost less than individual room units."

increased efficiency

A search of published literature relating to increased efficiency through airconditioning showed that reports of surveys in office buildings indicated increases in efficiency from 20% to over 50%, and in factories, from 22% to 28%.

improvement in attendance

In office buildings, reports relating to absenteeism showed reductions from 27% to 30%, and in 75 factories, similar reductions.

A report of labor turnover indicated a reduction of 40%.

A survey of churches indicated improved attendance of as much as 50%.

economics of airconditioning

The purchaser is faced with the decision to spend a substantial amount of money—the initial cost of an airconditioning system. It is difficult for him to weigh this investment unless he is able to relate it to his entire cost of doing business.

When a building owner or designer is deciding whether or not year-round airconditioning should be included, some of the economic factors he must consider are:

- increase in human efficiency
- reduced personnel turnover and training due to improved working conditions
- ability to compete for personnel or tenants due to improved environmental conditions
- initial cost and cost of owning and operating the airconditioning system
- value of increased comfort as it affects customers in stores, restaurants, and theatres, or apartment dwellers and hotel guests
- reduced cleaning costs and preservation of interiors and merchandise

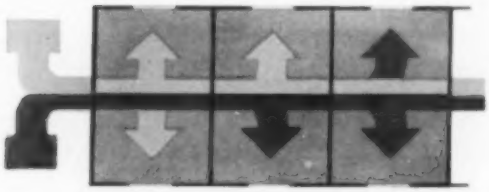
In addition to these factors, there are many other considerations, both tangible and intangible. However, the hard-headed building investor is often unwilling to accept some of the efficiency increases reported. If he can be shown what efficiency increase is necessary in his particular case for the installation to be economically profitable, then he can make his own decision based on this gain, plus all the other factors such as reduced personnel turnover, increased shopper comfort, etc.

This presentation attempts to put the cost of year-round airconditioning in its proper perspective relative

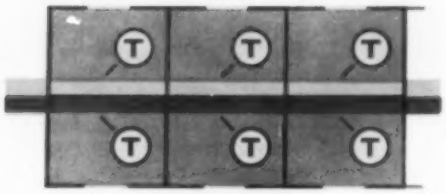
TEMPERATURE



COMPLETE SYSTEM

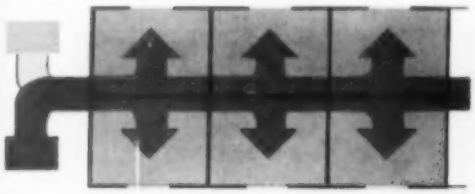


Heats and cools as required.

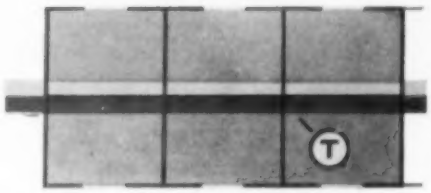


Controls heating and cooling to meet the needs of each space.

INCOMPLETE SYSTEM



Heats or cools — not both.



Does not control temperature to meet the needs of each space.

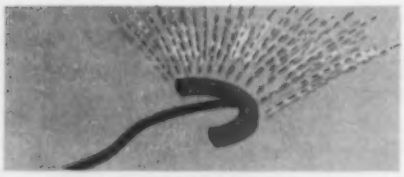
HUMIDITY



COMPLETE SYSTEM



SUMMER
Removes excessive moisture.



WINTER
Adds adequate moisture.

Controls moisture in the air all year around as the space requires.

INCOMPLETE SYSTEM



SUMMER
Inadequate moisture removal.



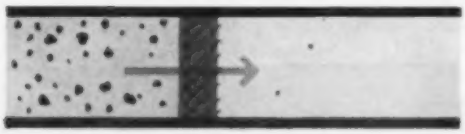
WINTER
No moisture added.

Inadequate to control humidity to meet space needs under all conditions.

CLEANLINESS



COMPLETE SYSTEM



Removes at least 90% of fine particles.



Removes odors. Does not transmit odors from space to space.

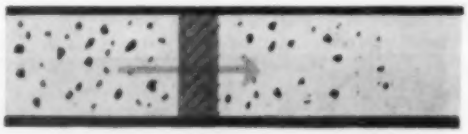


Brings in ample outside air for health and comfort.

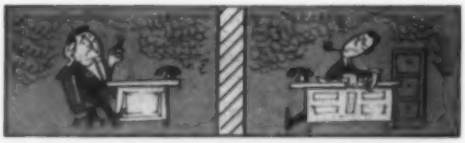


Pressurizes space to prevent drafts and dirt infiltration.

INCOMPLETE SYSTEM



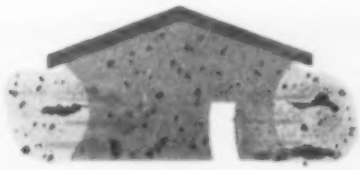
Removes only 15% of fine particles.



Leaves odors in space. Transmits odors from space to space.



Brings in inadequate outside air—or none at all.



Makes no provision for maintaining positive pressure in space.

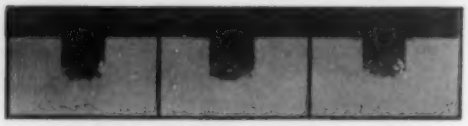
DISTRIBUTION



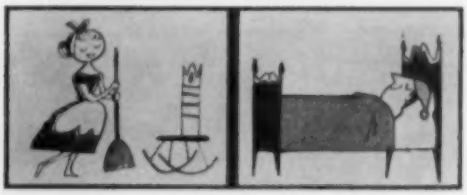
COMPLETE SYSTEM



Distributes air to each space individually.



Assures constant air volume.

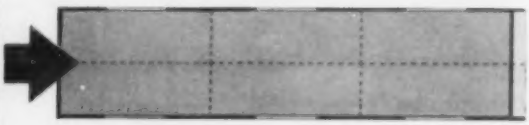


Quiet.



Distributes air in an even pattern.

INCOMPLETE SYSTEM



Distributes air by groups of spaces.



Air volume in one space is affected by needs of other spaces.



Noisy.



Distributes air in an uneven pattern.

ANNUAL COSTS PER SQUARE FOOT IN VARIOUS BUILDING TYPES

	Operation Costs $	Equipment & Supplies $	Salaries & Benefits $	Airconditioning (10 hrs./day)		Worker-efficiency Increase to Pay for airconditioning
				First Cost $/sf	Annual Cost	
Office buildings						
Owner-occupied	2.91	2.00	66.00	4.88	56¢/sf/yr (0.8% of Total)	add 0.85%
Tenant-occupied	4.47*	2.00	66.00	4.88	78¢ (incl. 20% Profit)	add 1.2 %
Industrial buildings	1.92	7.05	36.10	3.13	46¢ (1.0% of Total)	add 1.3 %
Stores	2.25	4.00	10.00	2.63	41¢ (2.5% of Total)	add 4.1 %
Hospitals**	5.56	19.80	26.94	3.85	78¢ (1.4% of Total)	add 2.8 %
**patients' area (24 hrs./day)	* as rent					

to the total cost of doing business. When this material was developed, it was surprising to note how little an increase in human efficiency is required to make year-round airconditioning a sound, profitable investment.

cost of airconditioning

In the following analysis, the cost of a new building is based upon today's construction costs.

The annual cost of insurance and taxes for commercial buildings is estimated at 2% of original construction cost, except that for public buildings, such as hospitals and Federal government buildings, no tax cost is included and insurance is estimated at 1%.

Airconditioning cost is based upon a year-round central fan system with a 20-year life, as recommended by the ASHAE GUIDE, with 5% of original cost added annually for interest and 2% for insurance and taxes. Again, only 1% is added for public buildings.

Airconditioning costs do not include heating costs nor cost of heating equipment, because an attempt has been made to compare the additional cost of year-round airconditioning beyond the cost of a conventional heating system.

These costs are also based only upon outside wall areas. If there are interior areas having no exposed walls, then the cost of airconditioning would be less than the estimates shown.

It is important to understand that these are average costs based upon recent experience in all parts of the country, and these estimates will vary somewhat with design and geographical locations of buildings.

new office building—owner-occupied

In a typical new owner-occupied office building, the annual cost of owning and operating the building, including heating, is $2.91/sf. Equipment and supplies amount to $2.00 and payroll, $66. The payroll at $66/sf/yr includes salaries and wages of everyone working in the office spaces in the building.

If the first cost of airconditioning is assumed to be $4.88/sf the additional annual cost of owning and operating a complete and flexible airconditioning system, which is operating 10 hrs/day, would be 56¢/sf, which is 8/10 of 1% of total cost.

If efficiency of people in the office building is increased only 85/100 of 1%, the airconditioning will pay for itself.

If a less-than-complete system is installed at a first cost saving of 20%, the annual cost/sf would be 48¢, which is 7/10 of 1% of total cost. Addition of only 1/10 of 1% in total cost would pay for a complete and flexible airconditioning system.

Additional benefits of airconditioning have not been considered in this analysis, but it is interesting to note that a federal government survey indicates cleaning costs are reduced 23% when airconditioning is installed. In an average office building, this would represent an additional saving of 13¢/sf/yr in operating costs.

Accompanying table continues this type of analysis for several other building types.

new store buildings

Personnel efficiency increase indicated in table ignores increased purchases by shoppers due to a more comfortable feeling. Average sales in a store of $78/sf/yr would require an increase of 2% in sales to pay for airconditioning.

hospitals

Hospitals present an interesting case because the number of people to serve 100 patients has increased 30% in 10 years and payroll (including nurses and orderlies) has grown to be 64% of all costs.

Benefits from hospital airconditioning include probable more rapid recovery of patients, lower cleaning costs, etc.

Today, doctors know that individual control of the hospital room environment may help a patient recover more quickly. Some patients need warm and humid rooms while others need cool and dry rooms, depending upon the illness.

Considerable progress has been made in using airconditioning in treating allergic disorders, such as hay fever and pollen asthma, as well as other diseases, and for heat and cold therapy.

In treating patients with rheumatic arthritis, a hot, dry environment of 90° and 35% relative humidity has proved to be desirable. Nurseries should be maintained at about 85° and 60% relative humidity.

new school buildings

Some educators believe that students learn more quickly in environments which are controlled for comfort.

Many schools are being built all over the country. Every effort is being made to reduce the cost of these schools, even to the extent of eliminating those things which are teaching aids. Yet, it is not generally known that only 10% of the expense of operating a school system is spent on the construction and maintenance of the school building. A reduction in cost of the building and its facilities may very well increase subsequent cost to the school system and reduce possibilities for learning.

There will be more airconditioning in schools as parents and the public appreciate that in some climates airconditioning may be a teaching aid and as they learn that airconditioning will add very little expense to the over-all cost of education. Also, the trend is toward year-round use of schools, including classrooms, for community purposes.

apartment buildings

A different way to analyze airconditioning and its effect on the economics of business operation is the one used in studying operation of apartment buildings. All the figures thus far have shown the cost of a complete year-round airconditioning system. Many salesmen act as if they are doing a favor when they help cut first cost by compromising with quality and cut out basically sound features.

This is illustrated in an analysis of the apartment house market where the owner can either buy a good system for an initial cost of $5.58/sf, or he can cut the heart out of the system and end up with a cost of $4.48/sf.

In a typical new apartment building, the annual cost to own and operate the building, including heating, equipment, supplies and payroll, is $2.32/sf.

Additional annual cost of owning and operating a complete and flexible airconditioning system, which is operating 24 hrs/day, 7 days/week, would be 79¢/sf.

Annual rent/sf would have to be increased 95¢ in order to provide a 20% profit on the investment.

Men and women who work in airconditioned office spaces and who shop in airconditioned stores are becoming dissatisfied with non-airconditioned apartments. They are willing to pay more for the comfort and cleanliness which a complete year-round airconditioning system will provide.

new hotels and motor hotels

In a typical new hotel or motor hotel, the annual cost of owning and operating the guest room area (including heating) is $3.47/sf. Equipment and supplies amount to $1.90 and the payroll, $3.42.

Additional annual cost of owning and operating a complete and flexible airconditioning system at a first cost of $4.91/sf, which is operating 24 hours/day, 7 days/week, would be 85¢/sf.

Annual rent/sf would have to be increased $1.02 in order to provide a 20% profit on the investment.

Each year, a greater percentage of hotel and motor hotel guests insist on airconditioned rooms and are willing to pay for them.

It is obvious that an extra charge should not be made, except during the summer months, if cooling only is provided for the guest rooms. Year-round airconditioning provides for an increase in income during the entire year, plus reduced cleaning and redecorating costs. Therefore, it pays for itself more quickly.

new houses

Next, a brief look at the cost of adding a complete year-round airconditioning system in houses in various price classes.

Before discussing the figures for typical $15,000, $25,000, and $45,000 houses, it should be emphasized again that airconditioning systems are being discussed that satisfy the ASHAE definition — that is, that treat the air so as to control simultaneously temperature, humidity, cleanliness, and distribution. These figures are perhaps high as compared with minimum systems, but note how little it costs to own and operate complete systems as compared with the total cost of owning and operating a house.

To arrive at the cost of owning a typical $15,000 house, the cost in principal and interest to carry a $15,000 loan over the expected life of the building has been used, which is normally assumed to be 40 years. The cost of principal and interest for 40 years at 5% is 79¢/sf/yr for a $15,000 new house 1100 sf in area.

Insurance and taxes have been calculated at 2% of value of the house, which equals 27¢/sf/yr.

Cost of typical utilities such as heat, light and telephone have been computed at 29¢/sf/yr.

A typical cost for maintenance and repairs is also 29¢/sf/yr.

Cost of owning and operating a complete year-round airconditioning system at a first cost of $1.00/sf and assuming its life to be 20 years, would be 17¢/sf/yr.

This shows that it costs 10½% extra to own and operate a complete system of airconditioning in a $15,000 house. Or, $15.60/month extra will pay for owning and operating a complete year-round airconditioning system.

A similar analysis of a typical $25,000 house having 1,500 sf shows that a complete year-round airconditioning system at a first cost of $1.00/sf costs 8½% extra, or $12.30/month to own and operate.

For a typical $45,000 house having 2,400 sf, a complete year-round airconditioning system at a first cost of $1.00/sf costs only 7.6% or $34 more/month to own and operate.

It is, of course, obvious that these typical square footages and costs will vary considerably in different parts of the country.

* * *

Buildings are built to keep out the elements and to create an environment for living, for working, and for industrial processes.

Without the building, an environment cannot be created. Without the proper environment, there is no purpose in constructing the building.

Every day the creation of a suitable and adequate environment becomes more important to the comfort, health, and productivity of people and to the efficiencies of industrial processes.

Monolithic Terrazzo

Theodore L. Medford

Executive Secretary, National Terrazzo & Mosaic Association

MONOLITHIC TERRAZZO is a hard-finished flooring developed to provide beauty and durability at low initial cost. In technical terms, it is a mixture of portland cement, marble chips and water, bonded to and integral with a prepared structural concrete slab. It is installed 5/8" thick, using #1 and #2 marble chips.

Monolithic differs from other forms of terrazzo in that it eliminates the underbed commonly associated with terrazzo. Because of this, it will be as good—and only as good—as the base slab to which it is bonded. Monolithic may use fewer divider strips. This cuts initial costs and although this represents a form of savings, it also reduces the degree of insurance which dividers provide against cracks resulting from building movement. When any building movement is anticipated, the Association recommends use of conventional terrazzo. In conventional terrazzo, the total fill over the concrete base slab is specified to be 1¾" to 3" thick.

Monolithic is installed over the base slab which should be a minimum of 4", wire-reinforced, and backed up by a vapor barrier (if on-grade construction) between the earth and the slab. No provisions need be made for troweling the slab, which should be poured 5/8" below the future finished floor level. The surface of the slab should not vary in any direction more than 1/8" when tested with a ten-foot straightedge and should be broom or rake-finished. All laitance associated with the setting up of concrete should be removed. The slab should be kept as partition-free as possible in the terrazzo area.

The terrazzo topping for monolithic is mixed in the same manner as other forms of terrazzo. It is composed of 2 to 2½ parts of marble chips to one part of portland cement. The color, kind and size of marble chips, and either gray or white portland cement, should be specified by the architect before the contract is signed. One part of marble chips should equal 100 pounds and one part of portland cement should equal one 94-pound sack. The mixture should be of uniform composition of the several kinds and colors of marble chips. The practice of placing a uniform mixture of one color and sprinkling several colors of chips on the surface before the rolling is started is *not* good; we specifically warn architects and contractors against it. If color is used in the mixture, it should be added by weight and not by volume. Where cement matrix is to be colored, the color pigments should be lime-proof and of non-fading quality.

The terrazzo should be placed between 24 to 48 hours after the slab is poured. The concrete slab should be clean and free of all materials that would affect bonding of the terrazzo topping and the slab. The concrete slab should be slushed with pure cement, immediately before pouring the terrazzo mixture. The terrazzo mixture should be placed to a thickness of 5/8", starting at a corner and placing a windrow 15 to 20 feet along the two walls.

These windrows are troweled to a level surface and a third windrow is then placed at right angles to one of the first two and troweled to the same level. This governs the placing for the entire floor and the direction the straight edge will be moved in screeding the floor.

This is highly important as a guide. Successive windrows are then placed and the areas between them filled and screeded to a level surface. The mixture should be placed over the entire floor in one continuous operation. The floor is then hand-troweled and any low areas filled with the terrazzo mixture and retroweled. The floor is then sprinkled with a wetted mixture of the marble chips. (These chips should be wet enough so as not to absorb water from the floor surface.)

Any terrazzo mixture which directly abuts an outside wall should be separated from it by at least one layer of saturated roofing felt, or another suitable material.

The floor is then rolled; starting along a wall at right angles to the direction in which it was screeded. After the rolling of an area has been completed in one direction, it should then be rolled at right angles to the first direction and finally on a 45° angle, or a diagonal to the first two rollings. During the rolling operation, it is important that the extruded cement be swept from the floor. Any low areas should be filled and re-rolled. The use of water to prevent the chips from sticking to the roller should be kept to a minimum.

The floor is then cured by ponding with wet sisalkraft paper or wet clean sand for a total of six days.

After the floor is sufficiently cured, it is then rough ground in the presence of excess water. This should be done on a partition-free floor, using 24-grit abrasive stones, in directions parallel to the walls. It should be ground in overlapping straight lines and all circular operations of the machine should be kept to a minimum.

The final state of the rough grinding is done with 80-grit abrasive stones. After this grinding, the surface must be carefully cleaned, mak-

ing certain that there are no fines or dust remaining on the floor. An abundance of clean water should be used to flush the floor.

Following the cleaning and while the floor is still saturated with water, a light application of the same kind of portland cement (and any coloring pigment which has been used) is placed on the floor. This grouting must be done the same day and immediately following the rough grinding and cleaning. Portland cement will not bond to the floor if any dust remains. Using a grinding machine and 80-grit stones, the grout should be rubbed on quickly. The grout should remain on the floor until such time as all of the tradesmen (except the painters) have completed their work; or a minimum of four days.

Following the grouting, the terrazzo floors should be protected by the general contractor or builder by a covering of sisalkraft paper or a two-inch bed of clean sand. This will prevent damage and staining of the floors by the building trades until the terrazzo contractor is ready to finish the floor by fine grinding and sealing. Many architects today specify that, after the placing of the grout, the floor be given a coat of penetrating sealer before covering with sand. This often is good insurance for a stain-free finished floor.

When the floor is ready for fine grinding, the grout is removed by machine-grinding in the presence of an excess of water, using 80-grit or finer abrasive stones. The grinding is again done parallel to the walls and, if required, the floor may then be machine-sanded to remove all marks left by the grinding stones.

The floor should then be mopped, thoroughly cleaned, and sealed; using a penetrating-type sealer as recommended by member firms of the National Terrazzo Manufacturers Association. After the sealer is applied, it is buffed to a polished finish.

Divider strips used in monolithic terrazzo floors are made of half-hard brass or white alloy zinc (99% zinc). Small residential jobs generally do not require strips. In commercial use, it is recommended that a panel size not exceeding 10 x 10 feet be used. Divider strips are cement-nailed when using the T, L, or expansion-joint types. They should be placed under all load-bearing walls and on each side of door jambs or doorways.

Terrazzo is probably the easiest and most economical floor to maintain. Although mild forms of soap may be used, we recommend the use of liquid cleaners manufactured solely for use on terrazzo. The more often the floor is mopped and cleaned, the more beautiful it will become. New floors should be scrubbed two or three times a week and mopped on alternate days. Later, it will need much less care and maintenance cost will drop with age.

We do not recommend the use of surface waxes. Terrazzo is inherently not a slippery floor and has frictional resistance in excess of the slip-resistance minimum coefficient of 0.50 established by Underwriters Laboratories.

Any slipperiness of terrazzo is due to foreign substances such as wax, soap film, and oil. Applied to the surface, soap cleaners in the presence of the lime in cement immediately change to calcium grease, or what is commonly known as soap film. It not only creates slipperiness, but dulls the finish and hides the natural beauty of the floor. The association's standard specification warns that cleaning agents should be free from alkali, acid, metallic salts, or other strong ingredients which may harm the floor.

Because the cement in terrazzo is porous, the penetrating-type sealer (which is absorbed into the floor and closes the pores) protects against staining. It should be noted that marble comprises approximately 70% of the finished surface; it has very low porosity. Therefore, the major cause of staining is absorption of foreign materials into the cement; for this reason we recommend the use of penetrating sealers rather than surface waxes.

Monolithic terrazzo has found its greatest use in private residences and is being widely-used today in structures whose floors are built on on-grade slabs. These structures include churches, schools, motels, hospitals, and chain stores. These may appear to coincide with building types employing conventional terrazzo; the difference is that monolithic terrazzo is not always suitable for multi-level structures.

Monolithic has been proven adaptable to either on-grade or lift-slab construction. It is most readily accepted in on-grade slabs because of the ease of coordinating various facets of building. However, it can be used with structural slabs if such slabs are properly designed and the terrazzo laying is scheduled so that it will become an integral mass with the slab. This requires close coordination between the general and terrazzo contractors.

Climate is a factor in the use of monolithic terrazzo, since severe variations in temperature expand and contract the base slab. If the slab is properly protected by the designer against frost hazards (particularly at the building perimeter) and drainage problems, monolithic is acceptable. The simple point is that any cracking of the slab will also crack the monolithic terrazzo.

Vibration is a determining factor in the use of monolithic terrazzo. The association does not recommend its use in buildings which encounter movement because of nearby tunnels, subways, and the effect of heavy machinery. In such cases, conventional terrazzo is recommended.

Originally, monolithic first found favor in Florida and has now become its most popular floor. Its growth spread to Georgia, South Carolina, and Tennessee, until, today, its use has reached as far north as Minnesota and Wisconsin. Monolithic recently made its debut on the West Coast.

Monolithic terrazzo is continually finding new markets through new construction methods, (i.e. — lift slab) and because architects and owners obviously need floors which will stand heavy wear in low-budget situations as well as those in which initial-cost savings are not a critical factor. As we all know, the floor is the most used part of a building.

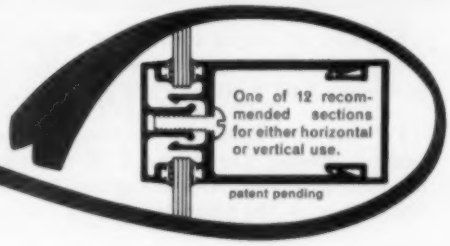
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CALENDAR

February 2-3: Joint conference on Designing the Indoor Environment, sponsored by the University Engineering Extension, University of California, Los Angeles, California.

February 3-March 6: Exhibition of Corbusier's work at the Building Center, Store Street, London.

February 5-7: Convention and Annual Meeting, Ontario Association of Architects, Royal York Hotel, Toronto, Ont., Canada.

February 6-7: Annual Meeting, The Alberta Association of Architects, Hotel Palliser, Calgary, Alberta, Canada.

February 17-19: Annual National Church Architectural Conference and Exhibition, Hotel Statler Hilton, Los Angeles, California.

February 17: Royal Institute of British Architects. A lecture by N. Keith Scott on "An Architect Looks at America." 66 Portland Place, London.

February 18: Edinburgh Architectural Association, General Meeting, Lecture by J. B. Bakema on "The Relationship between Architecture and Town Planning," The College of Art, Edinburgh.

February 19: Northern Architectural Association, General Meeting, Newcastle-upon-Tyne, England.

February 23-26: Annual Convention, American Concrete Institute, Hotel Statler Hilton, Los Angeles, California.

February 26: Second Annual Building Congress on Urban Renewal, National Housing Center, Washington, D.C.

March 5: South Wales Institute of Architects, Council Meeting, Royal Hotel. Cardiff, Wales.

May 1-7: Annual Convention, Royal Australian Institute of Architects, Brisbane, Queensland.

June 10-13: British Architects' Conference, Cardiff, Wales.

July: Meeting of Housing Commission of the UIA, Moscow, U.S.S.R. Details of all UIA activities from M. Pierre Vago, 15 Quais Malaquais, Paris.

October 20-30: Annual Convention, Architectural Institute of Japan, Kyoto and Osaka.

March 9-11: Meeting of Board of Directors, The Octagon, Washington, D.C.

March 11-12: 9th Annual Iron and Steel Conference, Sponsored by the Pittsburgh Section of the Instrument Society of America, Pittsburgh, Pa.

March 10-12: AIA-NSF Conference on Basic Architectural Research, University of Michigan, Ann Arbor, Michigan.

March 13-14: Middle Atlantic Regional Meeting, Greenbrier Hotel, White Sulphur Springs, W. Virginia.

April 1: 28th Annual Meeting of the Inter-Society Color Council, Hotel Statler Hilton, New York City.

April 18-25: Historic Garden Week in Virginia, sponsored by the Garden Club of Virginia.

April 24-25: Great Lakes Regional Conference, College of Architecture and Design, Ann Arbor, Michigan.

April 25-May 10: 22nd Annual Maryland House and Garden Pilgrimage.

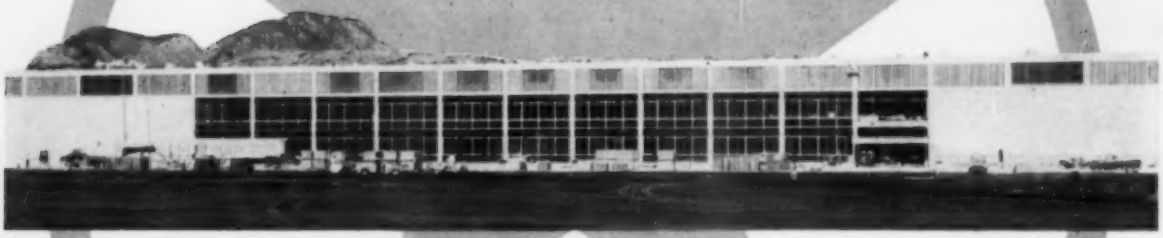
Necrology

According to notices received at The Octagon between December 3, 1958 and December 31, 1958

EPSTEIN, ABRAHAM, Chicago, Ill.
HARRIS, PAUL, Lawton, Okla.
HOGG, FRANK TREVOR, Centreville, Maryland
HUTCHINGS, E. T., Louisville, Ky.
JACOBSON, BYRON F., Tacoma, Wash.
KLAMBERG, WADE H., Dallas, Texas
LOVATT, GEORGE I., SR., FAIA, Philadelphia, Pa.
MARTSOLF, ARTHUR L., New Brighton, Pa.
RESCH, NILES F., Dallas, Texas
SCHELL, PAUL, Pittsburgh, Pa.
SMITH, BEN F., JR., Portland, Oregon
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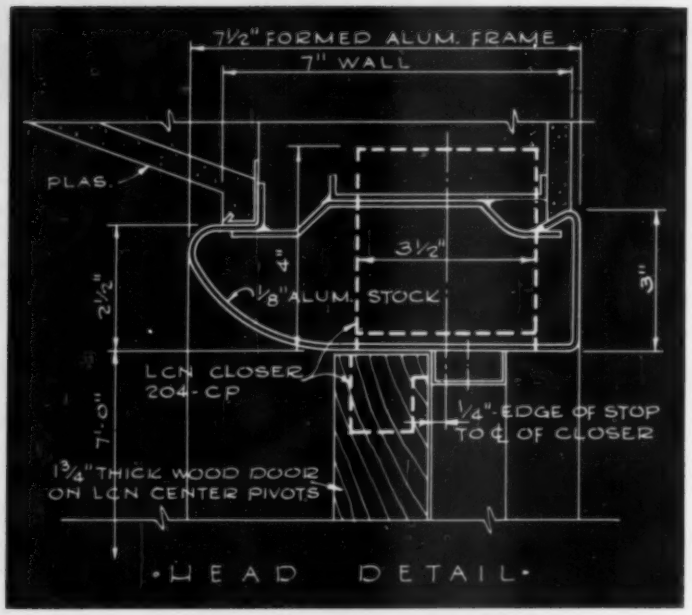
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CONSTRUCTION DETAILS

for LCN Overhead Concealed Door Closer Shown on Opposite Page

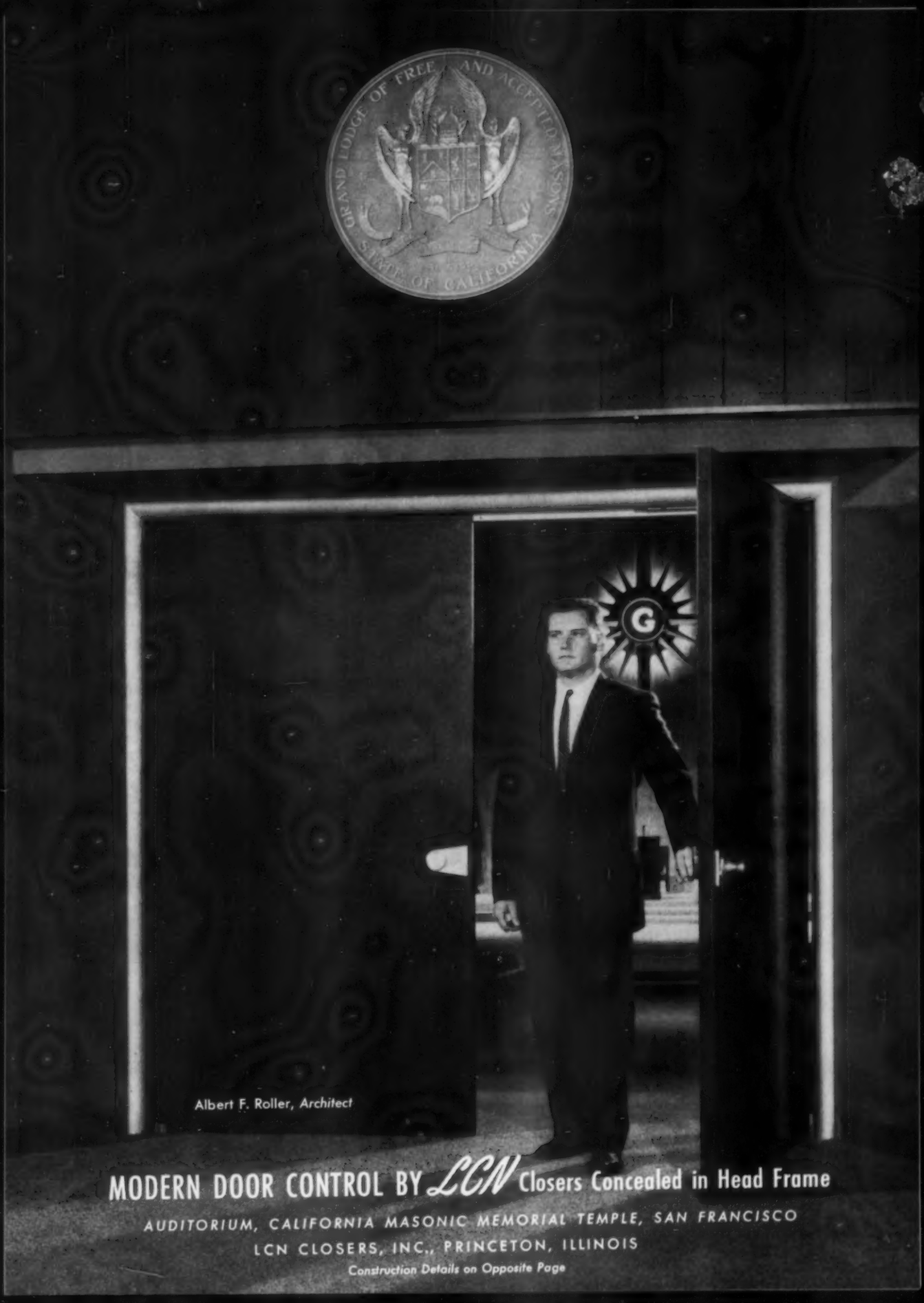
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Construction Details on Opposite Page

TECHNICAL BIBLIOGRAPHY

*** Automatic Lifts—Commercial Standard CS142-58. Supersedes CS-142-51.**

Office of Technical Services, U.S. Dept. of Commerce. 5¾" x 9", 21 pp, 15¢

Establishes minimum Standard Specifications for hydraulic, hydropneumatic, and mechanically operated automatic lifts. Its purpose is also to promote adequacy and safety in construction and operation; and to provide a basis for fair competition, for enhanced public confidence, and for identification of automatic lifts conforming with the Standard.

** Available from Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. (Stamps not accepted.)*

(a) Steps to Secure Sound Zoning
(b) Principles of Industrial Zoning
(c) Performance Standards in Industrial Zoning

National Industrial Zoning Committee, 820 Huntington Bank Bldg., Columbus 15, Ohio. 6" x 9", 9 to 15 pp, 25¢ each. These modest brochures present in concise terms much information of value related to titled subject matter.

Concrete Masonry Units (UL 618)

Underwriters' Laboratories, Inc., 207 East Ohio St., Chicago 11, Ill. 1958. 5⅛" x 9", 15 pp

Lists requirements necessary to meet Underwriters' Laboratories approval and labeling of concrete masonry units which are shown by tests to be eligible for fire resistant classifications under standard fire exposure conditions.

Test Methods for Fire Resistance of Roof Covering Materials (UL 790)

Underwriters' Laboratories, Inc., 207 East Ohio St., Chicago 11, Ill. 1958. 5⅛" x 9", 18 pp

Lists requirements of Underwriters' Laboratories for acceptance and labeling of built-up and prepared roof covering materials for Class A, B, and C roofings.

American Standard Graphical Symbols for Fluid Power Diagrams. ASA Y32.10-1958

American Society of Mechanical Engineers, 29 W. 39th St., N.Y. 18, N.Y. 8½" x 11", 15pp, $1.50

This Standard is a manual of symbols for use in graphical diagrams for liquid or gas fluid power systems within enclosed circuits to transmit and control power

This Standard shows the basic symbols, describes the principles on which symbols are based, and illustrates some representative composite symbols. Composite symbols can be devised for any fluid power components by combining basic symbols.

American School and University

American School Publishing Corp.; 470 4th Ave.; NY 16, NY 1958-59. 8¼" x 11", 2 Vols., $10

This is the 30th edition of this comprehensive reference guide, Volume I of which contains 57 timely articles on planning, financing, designing, equipping, maintaining and operating of school and college plants, by architects, school officials, and consultants.

Articles are well illustrated and include many plans and diagrams. Volume II provides an unusually complete purchasing file well arranged for convenient reference.

Building With Plastic Structural Sandwich Panels

MIT Dept. of Architecture
AIA members may obtain copies from: Walter H. Dow, Product Promotion Mgr., Advtg. and Sales Promotion, Plastics Div., Monsanto Chemical Co., Springfield 2, Mass. 116 pp

This illustrated compilation on plastic structural panels culminates a 3-year research project sponsored by the Plastics Div., Monsanto Chemical Co. In addition to extensive individual chapter references, the publication contains an annotated Bibliography of related publications.

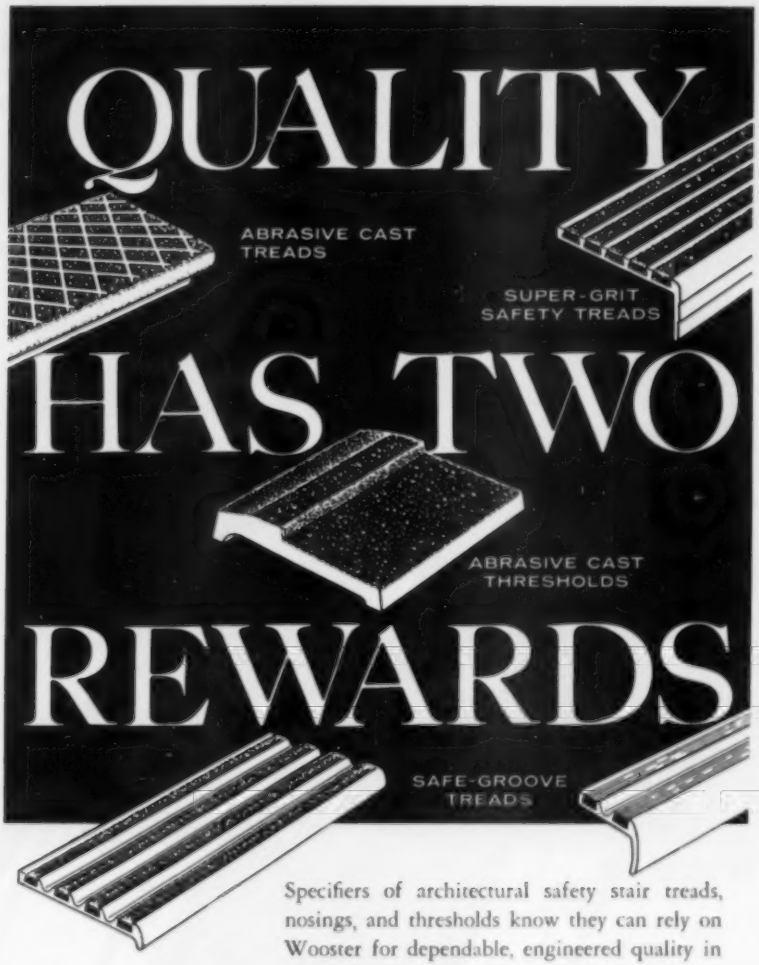
TECHNICAL NEWS

committee appointments:

Herbert C. Elton, AIA, (Connecticut Chapter) and Frederick C. Genz, AIA (New York Chapter) have been reappointed as the Institute's representative and alternate, respectively, on the ASA Construction Standards Board for a two-year period beginning January 1959.

Kelsey Y. Saint, AIA (Baltimore Chapter) has been appointed to succeed Carson M. Cornbrooks, AIA, as chapter representative for collaboration with the Institute's Department of Education & Research.

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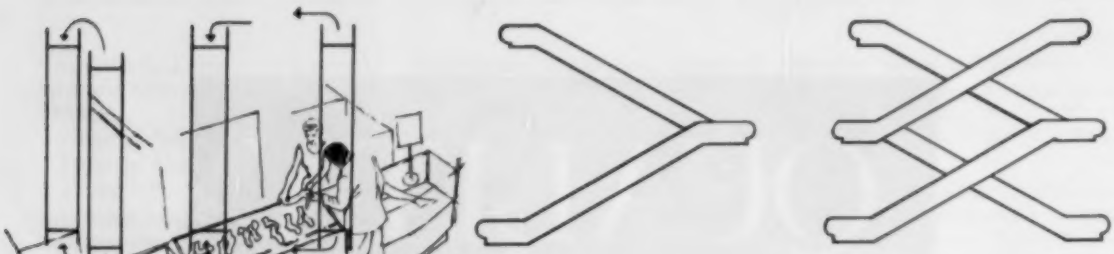
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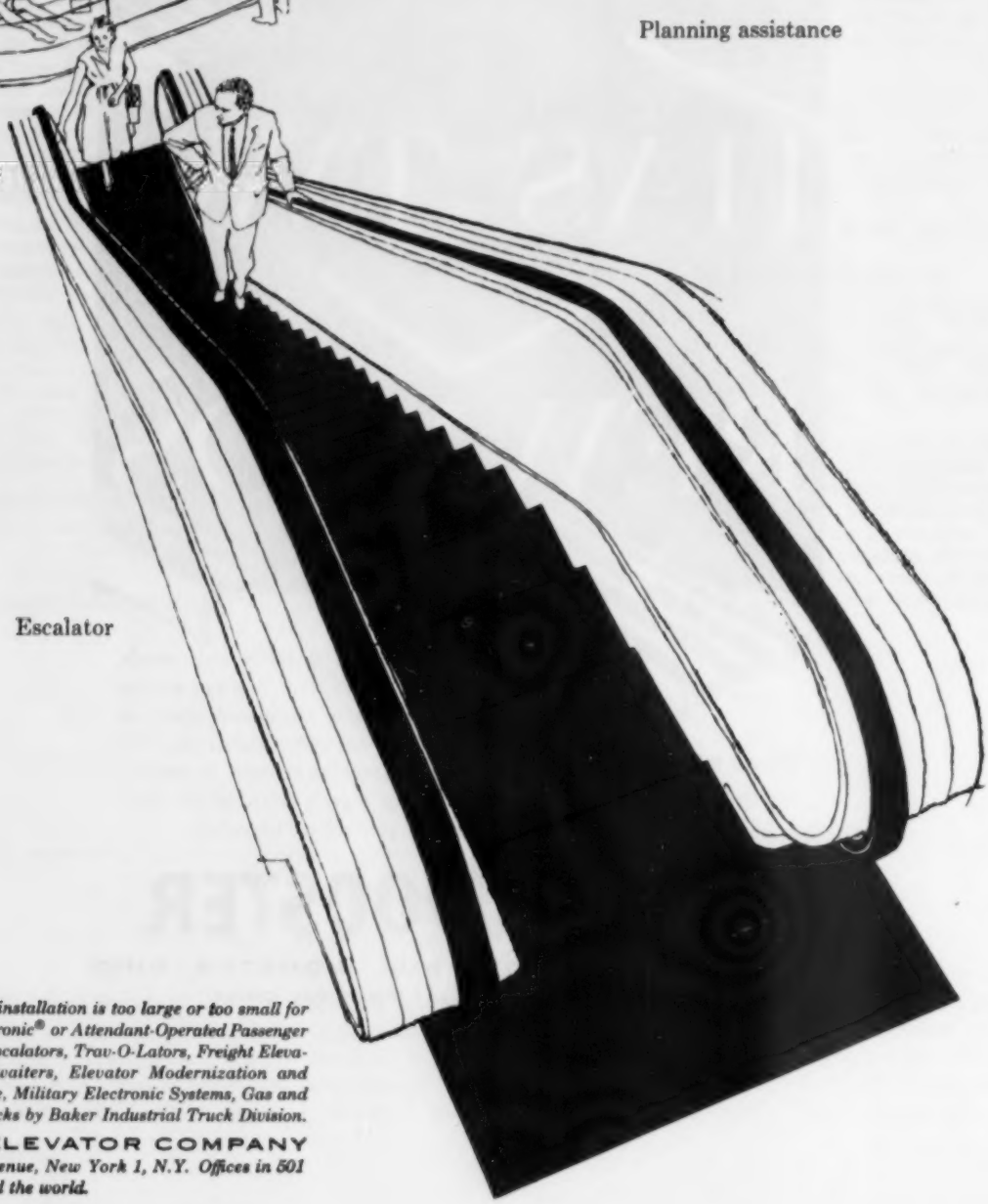
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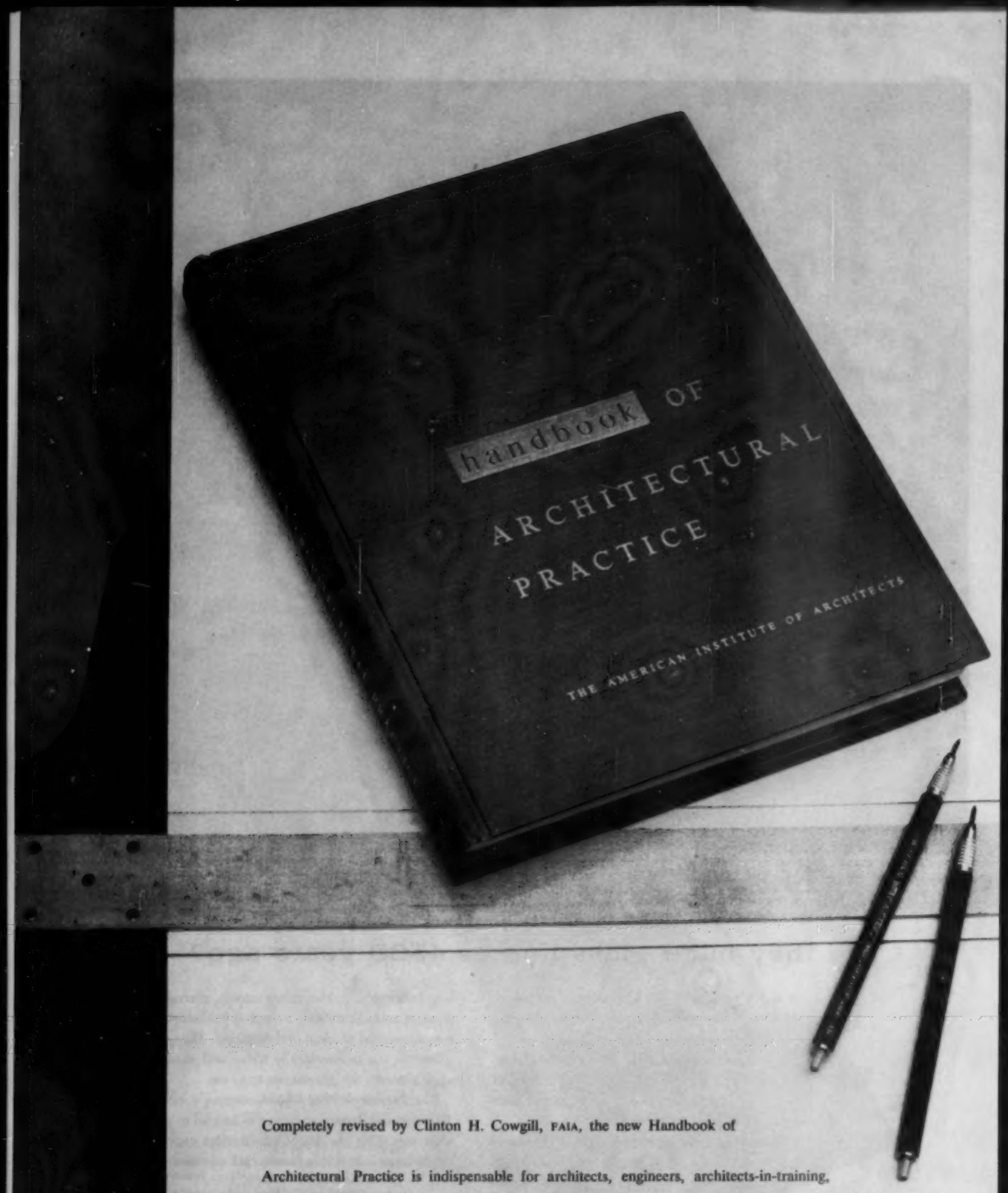
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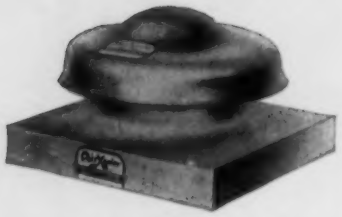
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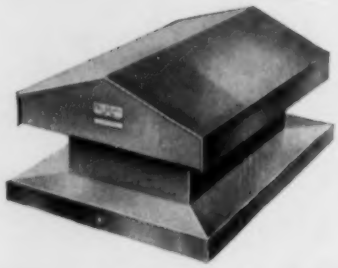
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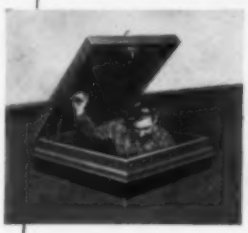
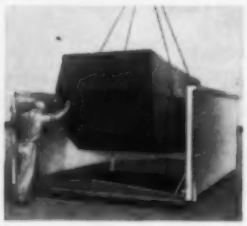
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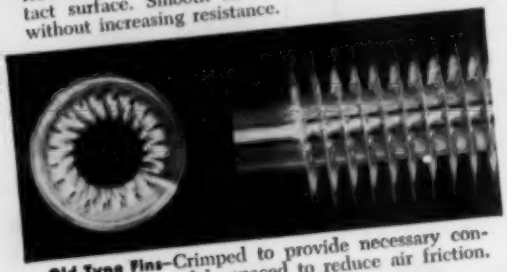
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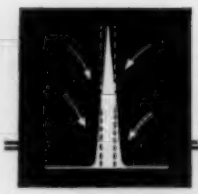
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